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TRANSACTIONS

OF THE

MEDICAL SOCIETY

OF

NORTH CAROLINA.

1876.

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TRANSACTIONS

OF THE

TWENTY-THIRD ANNUAL MEETING

OF THE

Medical Society,

OF THE

STATE OF NORTH CAROLINA.

HELD AT

FAYETTEVILLE, N. C., MAY, 1876.

RALEIGH, N. C.:
EDWARDS, BROUGHTON & CO., PRINTERS AND BINDERS.
AUGUST, 1876.

OFFICERS

OF THE

Medical Society of the State of North Carolina,

FOR 1876--'77.

PRESIDENT:

DR. GEORGE A. FOOTE,

WARRENTON.

FIRST VICE-PRESIDENT:

DR. J. K. HALL,

GREENSBORO'.

SECOND VICE-PRESIDENT:

DR. B. W. ROBINSON,

FAYETTEVILLE.

THIRD VICE-PRESIDENT:

DR. A. A. HOLMES,

CLINTON.

FOURTH VICE-PRESIDENT:

DR. A. A. HILL,

LEXINGTON.

TREASURER:

DR. A. G. CARR,

DURHAM.

CORRESPONDING AND RECORDING SECRETARY:

DR. JAMES McKEE,

RALEIGH.

ORATOR:

DR. J. F. SHOFFNER,

SALEM.

MINUTES

OF THE

Medical Society of the State of North Carolina.

Twenty-Third Annual Meeting.

FIRST DAY—Morning Session.

Fayetteville, N. C., May 3d, 1876.

The Medical Society of the State of North Carolina convened this day in the Opera House, in its twenty-third Annual Session, and was called to order by the President, Dr. Peter E. Hines, of Raleigh.

The President announced the unavoidable detention of the Secretary, Dr. Jas. McKee, and appointed Dr. T. F. Wood, of Wilmington, Secretary *pro tem.*

Dr. T. D. Haigh, of Fayetteville, introduced Mr. J. H. Myrover, who welcomed the Society in a pleasant, whole-souled and humorous manner.

The President appointed as Committee on Credentials Dr. Satchwell, Dr. Summerell and Dr. Hill, of Lexington.

Dr. Satchwell, the Chairman, explained what were the requirements for membership, and the Committee retired and in a few minutes returned and made the following report:

FAYETTEVILLE, MAY 3d, 1876.

TO THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA:

The Committee on Credentials respectfully recommend that the following gentlemen be admitted to membership:

DR. W. C. MCDUFFIE,	Fayetteville,	N. C.
" B. W. ROBINSON,	"	"
" ROBT. H. TOWLES,	Raleigh,	"
" HENRY TULL,	Kinston,	"
" A. V. BUDD,	Egypt,	"
" R. R. ROBESON,	Kyles' Landing,	N. C.
" M. J. DEROSSETT,	Wilmington,	"
" W. A. MURDOCK,	Mt. Ulla,	"
" JAMES W. MCNEIL,	Fayetteville,	"
" J. D. MCMILLAN,	Lumberton,	"
" W. H. MCKINNON,	Fayetteville,	"

We find Dr. T. F. WOOD and Dr. M. J. DEROSSETT are duly appointed delegates to this Society from the New Hanover County Medical Society.

S. S. SATCHWELL,
J. J. SUMMERELL,
A. A. HILL,
Committee.

The report was received, and the gentlemen came forward and signed the Constitution and By-Laws.

The Secretary then called the roll, and the following gentlemen answered:

DR. J. B. JONES,	Charlotte,	N. C.
" S. S. SATCHWELL,	Rocky Point,	"
" H. W. FAISON,	Faison's Depot,	"
" ALLMAN HOLMES,	Clinton,	"
" C. T. MURPHY,	Magnolia,	"
" HUGH KELLY,	Statesville,	"
" J. J. SUMMERELL,	Salisbury,	"
" P. E. HINES,	Raleigh,	"
" J. K. HALL,	Greensboro',	"
" GEO. A. FOOTE,	Warrenton,	"
" EUGENE GRISSOM,	Raleigh,	"
" J. W. JONES,	Tarboro',	"
" T. F. WOOD,	Wilmington,	"

"	Robt. J. Hicks,	Williamsboro',	"
"	H. T. Bahnsen,	Salem,	"
"	Willis Alston,	Littleton,	"
"	W. T. Ennett,	Rocky Point,	"
"	A. G. Carr,	Durham,	"
"	A. A. Hill,	Lexington,	"
"	T. D. Haigh,	Fayetteville,	"
"	W. C. Murphy,	Magnolia,	"
"	R F. Lewis,	Lumberton,	"
"	W. C. McDuffie,	Fayetteville,	"
"	B. W. Robinson,	"	"
"	R. H. Towles,	Raleigh,	"
"	Henry Tull,	Kinston,	"
"	A. V. Budd,	Egypt,	"
"	R. R Robeson,	Kyles' Landing,	"
"	M. J. DeRossett,	Wilmington,	"
"	W. A. Murdock,	Mount Ulla,	"
"	James W. McNeil,	Fayetteville,	"
"	J. D. McMillan,	Lumberton,	"
"	W. H. McKennon,	Fayetteville,	"

The President appointed as Committee on Nominations, Drs. J. J. Summerell, Kelly, H. T. Bahnsen, J. W. Jones and Thomas F. Wood.

Committee on Finance, to consist of Drs. H. W. Faison, J. K. Hall and A. G. Carr.

A question of eligibility of delegates from auxiliary Societies, not members of the State Society, to take part in the proceedings, being raised by Dr Wood, it was settled by admitting such delegates under a clause of the Constitution The discussion was participated in by Drs. Summerell, Satchwell and Bahnsen.

The Society accepted an invitation from the Clarendon Club to make use of their rooms during their stay in Fayetteville.

Dr. McDuffie, of Fayetteville, moved the appointment of a Committee to enquire into the irregularities of Medical Colleges in North Carolina.

The following gentlemen compose the Committee: Dr.

McDuffie, of Fayetteville; Dr. A. A. Holmes, of Clinton; Dr. R. F. Lewis, of Lumberton; Dr. Geo. A. Foote, of Warrenton; and Dr. J. K. Hall, of Greensboro'.

Dr. M. J. DeRossett read a report of 1,092 cases of eye surgery, 263 of the diseases of the ear and 41 of the throat. The cases were explained and commented on at considerable length. They covered a very great range of surgical and other diseases of the eye, ear and throat, and the report and comments were received with marked attention and referred to the Committee on Publications.*

The Society adjourned to meet at 3 o'clock, P. M.

Afternoon Session.

Society met at 4 o'clock. The President in the Chair.

An invitation from Messrs. Phillips, Dodd and Gaston, to attend a ball in Odd Fellows' Hall on Friday evening, was

On motion of Dr. Wood, accepted, and the thanks of the Society tendered for the compliment.

Dr. S. S. Satchwell read a valuable paper on State Medicine and Preventable Diseases. It was a clear, forcible argument in favor of the establishment of a State Board of Health, and at its conclusion,

Dr. Satchwell moved the appointment of a Committee of five to memoralize the Legislature upon the subject.

The motion prevailed, and the President appointed the following gentlemen: Dr. S. S. Satchwell, of Pender Co.; Dr. R. L. Payne, of Davidson Co.; Dr. M. Whitehead, of Rowan Co.; and Dr. Geo. A. Foote, of Warren Co.

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*Papers not sent in.

The paper was referred to the Committee on Publication. [See Appendix A.]

Dr. Henry T. Bahnsen read several papers on obscure diseases which prevailed in his section sometime since. The papers elicited considerable discussion, and was referred to the Committee on Publication. [See Appendix B.]

Dr. McDuffie, of Fayetteville, read a paper on the treatment of epilepsy after the method of Dr. Brown Sequard, showing marked success by persistent and well-directed following of his plan.

The paper was referred to the Committee on Publication. [See Appendix. C]

Dr. Allman Holmes, of Clinton, reported several cases of interest. Among them a very interesting case of *Ovariotomy* performed in 1858. This operation originated with American Surgeons and has since been more frequently done, so frequently that it hardly excites comment now, but at the time this was operated on it was more noticeable from its rare occurrence.

The papers were referred to the Committee on Publication. [See Appendix D.]

Dr. Geo. A. Foote, of Warrenton, read a paper presenting a case of comminuted fracture of skull, in which trephining was resorted to with success.

The paper was referred to the Committee on Publication. [See Appendix E.]

Dr. Foote reported verbally a case of Curvature of the Spine and Psoas Abscess. Recovery was complete, using Pott's apparatus in the treatment.

Dr. H. W. Faison, of Sampson, reported orally a case of Pott's Disease, treated by Prof. Lewis A. Sayres' application of plaster bandage. He pointed out to the Society the advantages of this method of treatment. It had great advantages over the Spinal Apparatus mentioned by Dr. Foote, as it required but little skill to apply it, that the

materials were always easily procured, and that its expense hardly cost as many cents as the steel appliances cost dollars, but above all this it was successful.

Adjourned to meet at 8½ o'clock, P. M.

NIGHT SESSION.

Society met at 8½ o'clock. Dr. P. E. HINES, President, in the Chair.

Dr. SATCHWELL, delegate to the Army and Navy Surgeon's Medical Society, held in Richmond, in 1875, made a report of the proceedings of that body.

Dr. SATCHWELL offered the following resolutions, which were ordered to be spread upon the minutes of the Society:

WHEREAS, Since our last annual meeting we have authentic information of the untimely and melancholy death of one of North Carolina's most talented and noblest daughters, in the person of Miss SUSAN J. DIMMOCK, M. D., a graduate of the Medical Department of the University of Zurich, Switzerland, and an honorary member of the Society; therefore,

Resolved, That, appreciating this loss to science and to the profession of this brilliant intellect, and her self sacrificing efforts in what she believed to be conducive to the progress of knowledge and the cause of humanity, we extend to her bereaved mother this expression of our loss and sincere sympathy in her affliction, and that a copy of this Preamble and Resolution be spread upon our minutes, and sent to the afflicted mother by the President.

Dr. BAHNSEN read a paper on the conduct of the Natural

Labor, strongly recommending the administration of opium to quiet the woman and hasten the delivery.

The paper elicited quite a discussion, participated in by Drs. BAHNSEN, FOOTE, JOHNSON B. JONES, HAIGH, ROBINSON and DEROSSETT. Paper was referred to Committee on Publication.*

Dr. J. W. JONES, of Tarboro', read a paper on the treatment of a wounded hand made by the saws of a gin.

The paper was referred to Committee on Publication. [Appendix F.]

Dr. J. W. JONES, of Tarboro', moved that the President appoint a Committee of five to investigate and report upon the propriety of establishing a Medical Journal. Carried. The following gentlemen compose the Committee: Drs. J. W. JONES, S. S. SATCHWELL, THOS. F. WOOD, GEO. A. FOOTE and J. B. JONES.

Dr. BAHNSEN moved that the discussion on Puerperal Eclampsia be taken up as the first business in the morning. Motion prevailed.

The President appointed the following gentlemen a Committe on "Selection of Subject and Essayist": Drs. J. B. JONES, SATCHWELL and HAIGH.

Dr. P. E. HINES made the following remarks upon announcing the death of Dr. CHARLES E. JOHNSON:

GENTLEMEN:—It is with profound sorrow that I inform this Society of the death of one its founders, and one of its oldest and most devoted members; one who always felt a warm and lively interest in its prosperity. Dr. CHARLES E. JOHNSON died at his home, in Raleigh, on the first day of April, 1876, after a brief illness of Acute Rheumatism, which successively attacked the muscles, joints, heart and arteries, the stomach, and finally the lungs.

*Not sent in.

The attack was an intensely painful one, and he bore it with christian resignation and humble submission to the will of God.

As I know of no subject more worthy of the consideration of the members of this Society, than the life and character of its distinguished, departed members, I shall read a memoir of Dr. JOHNSON, instead of the usual address of the retiring President.

When Dr. SATCHWELL moved that a Committee on Obituary be appointed to report at 11 A. M. to-morrow, and the report of the Committee be followed by the memoir of Dr. JOHNSON by Dr. HINES. Motion prevailed.

On motion of Dr. LEWIS, the Society adjourned to meet at 10 o'clock in the morning.

SECOND DAY—MORNING SESSION.

FAYETTEVILLE, N. C., May 4th, 1876.

The Society was called to order at 10 o'clock. Dr. P. E. HINES, President, in the Chair.

The President announced the absence of Dr. W. A. B. NORCOM, the Essayist, and after expressing regrets for it, called up the subject for discussion: Puerperal Eclampsia, which was opened by Dr. H. T. BAHNSEN, who read a paper on that subject. The discussion was generally participated in by the members, each giving his method and the result of his treatment, which in the aggregate makes a very fine exhibit

The discussion was continued till 11 o'clock, the hour set apart for the report of the Committee on Obituary.

The Committee, through the Chairman, Dr. SATCHWELL, submitted the following resolutions, which were adopted:

WHEREAS, This Society has learned with deep interest and profound emotioms of sorrow of the recent death, at his home in Raleigh, of that distinguished physician and fellow member of this Association, Dr. CHARLES E. JOHNSON; therefore,

Resolved, That in the death of this honored and eminent physician, accomplished gentleman and high toned citizen of the State, so favorably known far and wide for those virtues which adorn professional life as well as personal character, this Society has lost a member whose course in it was always of that devoted and high character which made him a worthy example to others. Whose skill and attainments in practice made him an ornament to the profession he loved so well and whose integrity as a man, fond devotion as a husband, father, brother and whose unselfish patriotism as a loving son of North Carolina will remain with enduring admiration and honor upon our memories and those who succeed us, and which increase the number of jewels belonging to this Society, to our profession and to our State.

Resolved, That a copy of this preamble and resolution shall be spread upon our minutes, published in the Raleigh papers by the Secretary and sent by him to the bereaved family of our deceased bother. with assurances of our sincerest sorrow and sympathy with them in this severe affliction.

Respectfully submitted,

S. S. SATCHWELL,
J. J. SUMEERELL,
J. B. JONES,
Committee.

FAYETTEVILLE, May 4th, 1876.

After some remarks, eulogistic of the deceased, by Dr. DEROSSETT and others, Dr. P. E. HINES presented and read

the following beautiful Memoir on the life of the late Dr. CHARLES EARL JOHNSON:

GENTLEMEN:—Dr. CHARLES EARL JOHNSON, the eldest son of CHARLES EARL JOHNSON and ANN WILLIAMS TAYLOR, was born at Bandon, the residence of his father, in Chowan county, March 15th, 1812. He was a student at the Edenton Academy, then under the charge of the Rev. Mr. SAUNDERS and the late Judge R. R. HEATH, where he remained until prepared for College, when he entered the University of Virginia and there completed his literary course. He then commenced the study of medicine in Edenton, with Dr. MATHIAS SAWYER, an eminent Physician of that section of country, of whom Dr. JOHNSON always spoke with affection, and entertained the highest opinion of his ability. He attended lectures at the Medical Department of the University of Pennsylvania, where he graduated in the Spring of 1834.

While attending the lectures he was the private pupil of the late Professor SAMUEL JACKSON, who formed a very high opinion of his ability, and held out to him, after graduating, every inducement to locate in the city of Philadelphia, where he assured him of success in his profession. In the same year he returned to Edenton and entered into a partnership with the late Dr. WM. C. WARREN, in the practice of medicine. Dr. WARREN was an accomplished gentleman, a kind and skillful Physician, and was justly held in the highest esteem by the people of Chowan and the surrounding counties. While residing in Edenton Dr. JOHNSON married Miss EMILY A. SKINNER, daughter of the late CHAS. W. SKINNER, of Perquimans county.

After spending a few years in Edenton, he removed to Harvey's Neck, in Perquimans county, where he remained only a short time, when he removed to Windsor, Bertie county, and there entered into a partnership with the late

Dr. John Gilliam, a gentleman of talent and reputation in the practice of medicine. From Windsor Dr. Johnson removed to Raleigh, in November, 1845, and resided there until his death on the 1st of April, 1876, being in the 65th year of his age. About two years after his removal to Raleigh, on December 20th, 1847, Mrs. Johnson died. On the 10th of April, 1849, Dr. Johnson married Miss Frances L. Iredell, the daughter of the late Gov. Jas. Iredell, of Raleigh, who survives him with eight children to mourn his loss.

Soon after locating in Edenton, Dr. Johnson was persuaded by some of his friends, who resided in Mobile, Ala., to remove to that city, who offered to insure him a large income for a certain number of years if he would go there and practice his profession. The same reason prevented him from accepting this proposition which had caused him to leave Philadelphia and locate in Edenton: the wish of his Mother that he should not locate so far away from her. Entertaining the highest esteem and devoted love for his Mother, her wish was a law to him, and he gave up all intention of removing to a large city, and settled down to a laborious country practice in a small village. Few men can appreciate the sacrifice he made to a mother's wish. A young man in the full vigor of physical and intellectual life, just entering upon the practice of his chosen profession, after a thorough preparation, and fully aware of the prizes of wealth and reputation which were open to him in the large cities, and encouraged to enter the contest for both by those thoroughly competent to judge of his intellectual and professional acquirements, and well knowing his own strength for the struggle, he yielded all his prospects of great wealth and reputation to his mother's wish and was content to live near her and to work hard in a most laborious and extensive country practice, until his health failed, when it became imperative upon him to remove to some more

healthy climate where he could recruit his health. It was for this reason that he removed to Raleigh. In a very short time after his removal to Raleigh, he won an enviable reputation as a Physician and Surgeon, both in the city and the surrounding counties, and obtained a very large practice, which he retained as long as he had the physical ability to attend to it. He took a lively interest in politics, and wrote many able political articles for the *Raleigh Register*. He studied politics, divinity and law, and wrote able and learned articles on the church and religion for the *Register*. In the late difficulty between the Judges of the Supreme Court and Members of the Bar, he took the part of the Bar, and wrote some of the ablest articles brought out by that controversy. Although Medicine was the profession of his choice and his first love, he studied others well, and if he had devoted himself to politics or the law, he would have without doubt attained to the first rank among such men as RUFFIN, GASTON, BADGER, HAYWOOD and BRAGG. He always entertained the highest opinion of his profession and was every ready to take part in any movement which had its elevation and advancement as the object to be attained. He was one of the signers of the call for a Convention of the profession of this State, preparatory to the formation of the Medical Society of the State of North Carolina, and was one of the founders of this Society and also one of the founders of the Raleigh Academy of Medicine. He delivered before this Society, at its sessions in 1851 and 1854, his able and exhaustive addresses upon the subject of Malaria. He was elected President of this Society in 1855 and re-elected in 1856. He always felt a warm interest in this Society and all of its members. At the first meeting of the Society at Statesville in May, 1859, after the passage by the Legislature of the law establishing the Medical Board, he was unanimously elected a member of that Board and served as a member of it with decided ability and impar-

tiality. He was elected by this Society one of the Editors of its Medical Journal, which he edited with distinguished ability until the absorbing interest in the prosecution of the late war caused all other interests to languish. He was elected Superintendent of the Insane Asylum before the completion of that building, but when informed that it was the intention of the Board of Commissioners to recommend to the Legislature the re-enactment of the law making it imperative upon the Superintendent to reside with his family in the Institution, he promptly declined the appointment. He was elected a member of the first Board of Directors of that Institution after its completion, and served as a member of the Board from that time, up to the Spring of 1873, when that Board was turned out by a decision of the Supreme Court. During almost the whole time of his service on the Board, he was its President and also Chairman of the Executive Committee.

When the late war burst upon the people of this State in May, 1861, Dr. Johnson was tendered the position of Surgeon General of the State by the late Gov. Ellis, which he accepted, and right well and nobly did he fulfil all the arduous and laborious duties incumbent upon him. He devoted his whole time and talent to the organization and equipment of the Medical Corps of the N. C. Troops, and the preparation of hospitals, and the accumulation of medical, surgical and hospital supplies. He established the first General Hospital of this State in this city, and early in the Fall of 1861 he equipped and opened the North Carolina Hospital at Petersburg, Va., thoroughly supplied with everything necessary for a first class General Hospital. In the winter of 1861–'62 he equipped and opened the 2d North Carolina Hospital in Petersburg, Va., having it as well supplied and equipped as the former one. During 1861 and '62 he visited every battle field, with a corps of assistants, with supplies of every kind for the wounded. In 1862, the Con-

federate Government expressing a wish, and making the request, that all the General Hospitals of the States should be turned over to its jurisdiction and control, Gov. CLARKE consented to the request, and all the General and Wayside Hospitals, which had been established by and been under the control of this State, were, by his authority, and upon the recommendation of Dr. JOHNSON, turned over to the Surgeon General of the Confederate States. The transfer of the two hospitals in Petersburg was made through me, acting for both of the Surgeon Generals, and all the inventories and receipts passed through my hands.

After the completion of the transfer of all the North Carolina Hospitals, and the Confederate Government claiming and exercising the right to appoint Surgeons for all the troops in its service, and all the General Hospitals, he thought there was no further need of a Surgeon General for the State, and Dr. JOHNSON resigned his office on December 31st, 1862. Dr. JOHNSON discharged all the duties incumbent upon him as Surgeon General with distinguished ability and entire devotion to the welfare of the gallant soldiers, who had stepped forth at the call of their native State, to fight, and suffer, and die in her defence; and no men ever made a more gallant record, or stood more firm and steadfast in their allegiance to a just cause—the right of self-government.

In 1869, Dr. JOHNSON published his able treatise on Insanity and its Medico Legal Relations, and dedicated it "To the Members of the Medical Society of the State of North Carolina, simply as a slight testimonial of respect for the talents and patriotism which induced you, 'a gallant few,' to step forward in the work of medical reform in North Carolina; of esteem for those steadfast virtues, courage and industry, which have caused you to press forward amid the greatest discouragements, and almost defeat in fact, 'to perform the tasks of hope in the midst of despair,' and of ac-

knowledgment for numerous instances of disinterested friendship and for honors conferred." All the positions of honor and trust bestowed upon Dr. JOHNSON, by this Society and by the State, "were wholly unsolicted" on his part. Dr. JOHNSON was best known as a successful practitioner of medicine, being a fine logician, eloquent in debate, a learned, skillful and kind physician, devoted to the welfare of his patients, attentive and kind, gentle and sympathetic, absolutely forgetful of self in his interest for them; he was most beloved by those who knew him best, and won the affection of all who came in contact with him. On the morning after his death, a little boy of only four years, expressed the general sentiment of all his patients, when he asked his grandmother, "Did we not all love him?" Dr. JOHNSON was a man of the highest order of intellect, learned in medicine, accomplished in literature, polished in manners, he was justly entitled to take rank among the very first men in the profession; and I regard him as an equal of GIBSON, JACKSON, HODGE, WOOD and STILLE of this country, and of NELATON, VELPEAU, TROUSSEAU, VALLEIX and ROSTAN, of Paris, having myself been a pupil of them all. This is a high encomium of any man; but I had known Dr. JOHNSON intimately as his pupil, friend and colleague, for twenty-five years, and know him to have been worthy of it. He was a devoted, humble christian, for many years a communcant in the Protestant Episcopal Church, abounding in charity for the frailties of his fellows, and pervaded by the spirit of love in all his conduct; he was an excellent citizen, a pure, honest man; a true friend, a devoted loving husband and father; he was beloved as few men are in this world The announcement of his death cast gloom and sadness over the whole city, and every one felt that a great and good man had departed from among us. He was "gathered to his fathers, having the testimony of a

good conscience; in the confidence of a certain faith, in the comfort of a reasonable, religious and holy hope."

On motion of Dr. SATCHWELL, the Secretary was ordered to have 300 copies of the Memoir, just read, published in pamphlet form.

Dr. HAIGH read a report of three cases of Paraplegia.

Dr. McRAE laid on the table an Ovarian Tumor, removed by Dr. A. V. BUDD, of Egypt, Chatham County, who remarked in a very few words that the case was entirely successful, and that the patient had since given birth to a child.

Dr. SATCHWELL, from the Committee on Medical Journal, made a partial report, looking to the ultimate establishment of the same.

The Committee on Medical Institutions was continued.

The Society adjourned to meet at 4 o'clock.

AFTERNOON SESSION.

The Society was called to order at 4 o'clock, Dr. T. D. HAIGH, Vice President, in the chair.

Dr. EUGENE GRISSOM, Superintendent of the Insane Asylum of N. C., read a most interesting and valuable paper on Mania Transitoria, which was referred to the Committee on Publication. [See Appendix G.]

Dr. W. C. McDUFFEE presented a report of a Chemical Investigation of the stomach of a person supposed to have been poisoned by Strychnia, made by Mr. S. J. HINSDALE.

It was referred to Committee on Publication.*

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*Paper declined by Pub. Committee, heretofore it had been published elsewhere.

Dr. BAHNSEN, from the Committee to Select Subject and appoint Essayist, offered the following resolution:

Resolved, That JOSEPH GRAHAM, M. D., of Charlotte, be appointed to deliver an essay upon Gynæcology, at the next meeting of this Society.

Adopted.

Committee on Finance submitted the following report:

FAYETTEVILLE, N. C., May 4th, 1876.

TO THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA:

The Committee on Finance beg leave to make the following report, after an examination of the Treasurer's books:

Balance in Treasury at close of last meeting,.....		$ 4 65
Received from Members, ...		262 00
Total,.....		$ 266 65
Expenditures for Medical Transactions and the printing Memorial of Dr. W. H. McKEE,.....	$ 176 25	
Secretary's salary,.....	100 00	
		276 25
Balance due, ...		$ 9 60

We recommend a per capita tax of $3.00 for the ensuing year.

HENRY W. FAISON,
JAS. K. HALL,
A. G. CARR,
Finance Committee.

The Committee on Nominations submitted the following report:

FAYETTEVILLE, N. C., May 4th, 1876.

TO THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA:

The Nominating Committee beg leave to submit the following Nominations:

For President:

DR. GEORGE A. FOOTE, Warrenton.

For Vice-Presidents:

1st. Dr. J. K. Hall, Greensboro',
2d. " B. W. Robinson, Fayetteville.
3d. " Allman A. Holmes, Clinton.
4th. " A. A. Hill, Lexington.

For Treasurer:

Dr. A. G. Carr, Durham.

For Corresponding and Recording Secretary:

Dr. James McKee, Raleigh.

For Orator:

Dr. J. F. Shoffner, Salem.

For Delegates to the American Medical Association:

Dr. N. J. Pittman, Tarboro'.
" W. W. Lane, Wilmington.
" W. G. Thomas, Wilmington.
" W. C. McDuffie, Fayetteville.
" T. D. Haigh, Fayetteville.
" M. J. DeRossett, Wilmington.
" M. Wnitehead, Salisbury.
" Hugh Kelly, Statesville.
" Eugene Grissom, Raleigh.

For Delegates to the International Medical Congress, to be held in Philadelphia, September 4th, 1876.

Dr. H. T. Bahnsen, Salem.
" S. S. Satchwell, Rocky Point.
" W. A. B. Norcom, Edenton.
" R. L. Payne, Lexington.
" R. J. Hicks, Williamsboro'.
" W. J. H. Bellamy, Wilmington.
" Thos. Duffy, Rutherfordton.
" P. E. Hines, Raleigh.

J. J. SUMMERELL,
HUGH KELLY,
H. T. BAHNSEN,
J. W. JONES,
T. F. WOOD,
Committee.

On motion of Dr. TOWLES, the report was received.

D. LEWIS moved that the Society now proceed to the installation of officers; which motion prevailed.

Dr. GEO. A. FOOTE, upon taking the chair, said:

GENTLEMEN:—Allow me to return my thanks for the compliment you have paid me, by selecting me to the highest office in the bestowal of this Association. I appreciate the difficulties of the trust you have imposed, and assume the duties with many misgivings.

I am constrained to think that you have thus been partial to me more on account of my past zeal in helping to build up and make useful our Society, than because of any high order of merit I possess as a Physician or presiding officer. But should I serve you with the same dignity, ease and impartiality as my distinguished predecessor, I shall indeed feel that I have done well.

The Medical Society of North Carolina has gained for itself a *reputation* of which it may well feel proud—and let us endeavor that no *violation* of medical ethics or want of professional zeal on our part shall ever tarnish it. By its calm, free and intelligent discussion of the questions that affect the health, and consequently the happiness of the human race, it has enlightened and benefited the masses, our fellow citizens, the human family, by giving them a higher appreciation of our hopes, expectations, efforts and desires—by teaching them that medicine is a science, not a quackery—and that it is *progressive*, onward and upward. It is of paramount importance, then, that we guard and protect the integrity and interests of our Society: that at our next annual meeting, all may be present; that God will crown with eminent success our efforts to alleviate the sufferings, and assuage the pains of our fellow men.

The Society then selected Salem, N. C., as the next place of meeting, and the time, the 4th Tuesday in May, 1877.

The Society then adjourned to meet at 7¼ o'clock, P. M., to hear the Annual Oration.

NIGHT SESSION.

The Society was called to order at 7¼ o'clock, by Dr. GEO. A. FOOTE, President, who introduced to the audience Dr.

WILLIS ALSTON, the Orator of the Society, who delivered an address on the Philosophy of Food. It was replete with instruction, and fully up to the latest views on this important branch of physiology.

The Society then adjourned in a body to participate in a ball given in compliment to them by the young gentlemen of Fayetteville.

JAMES McKEE, M. D.,
Secretary.

REVISED ROLL

Of Members in the Order in which they signed the Constitution.

Dr. E. Strudwick,	Hillsboro',	North	Carolina.
" W. G. Hill,	Raleigh,	"	"
" N. J. Pittman,	Tarboro',	"	"
" J. B. Jones,	Charlotte,	"	"
" R. B. Haywood,	Raleigh,	"	"
" Jas. B. Dunn,	"	"	"
" W. George Thomas,	Wilmington,	"	"
" S. S. Satchwell,	Rocky Point,	"	"
" J. R. Mercer,	Tarboro',	"	"
" E. B. Haywood,	Raleigh,	"	"
" Jas. P. Bryan,	Kinston,	"	"
" A. B. Pierce,	Halifax,	"	"
" H. W. Faison,	Faison's Depot,	"	"
" Allman Holmes,	Clinton,	"	"
" F. W. Anderson,	Wilmington,	"	"
" C. T. Murphy,	Clinton,	"	"
" Hugh Kelly,	Statesville,	"	"
" E. M. Henderson,	Concord,	"	"
" J. J. Summerell,	Salisbury,	"	"
" P. E. Hines,	Raleigh,	"	"
" M. Whitehead,	Salisbury,	"	"
" J. G. Ramsay,	Rowan Mills,	"	"
" J. A. Gibson,	Concord,	"	"
" R. H. Winborne,	Edenton,	"	"
" J. K. Hall,	Greensboro',	"	"
" Geo. A. Foote,	Warrenton,	"	"
" W. R. Sharpe,	Fulton	"	"
" Eugene Grissom,	Raleigh,	"	"
" R. L. Payne,	Lexington,	"	"
" F. M. Rountree,	Snow Hill,	"	"
" W. A. Collett,	Morganton,	"	"
" E. F. Ashe,	Wadesboro',	"	"
" D. B. Woods,	Rowan Mills,	"	"
" Chas. J. O'Hagan,	Greenville,	"	"
" W. A. B. Norcom,	Edenton,	"	"
" J. F. King,	Wilmington,	"	"

Dr. J. W. Jones,	Tarboro',	North	Carolina.
" J. F. Long,	Washington,	"	"
" C. W. Knight,	Tarboro',	"	"
" J. B. Hughes,	New Berne,	"	"
" W. W. Gaither,	Lenoir,	"	"
" J. C. Gidney,	Shelby,	"	"
" William Little,	Raleigh,	"	"
" William R. Wood,	Scotland Neck,	"	"
" J. H. Hicks,	Rocky Point,	"	"
" W. M. B. Brown,	Greenville,	"	"
" M. T. Savage,	Scotland Neck,	"	"
" Thomas F. Wood,	Wilmington,	"	"
" Thomas C. Powell,	Rocky Mount,	"	"
" Franklin Hart,	Tarboro',	"	"
" Geo. L. Kirby,	Goldsboro',	"	"
" L. A. Stith,	Wilson,	"	"
" J. F. Shaffner,	Salem,	"	"
" G. H. Macon,	Littleton,	"	"
" W. T. Cheatham,	Henderson,	"	"
" Robt. J. Hicks,	Williamboro',	"	"
" Elisha Porter,	Rocky Point,	"	"
" Walter Debnam,	Earpsboro',	"	"
" F. J. Haywood, Jr.,	Raleigh,	"	"
" C. R. Barron,	Toisnot,	"	"
" B. P. Alston,	Warrenton,	"	"
" V. O. Thompson,	Winston,	"	"
" G. G. Smith,	Concord,	"	"
" F. N. Luckey,	Salisbury,	"	"
" D. N. Patterson,	Mangum,	"	"
" Joel G. King,	Warrenton,	"	"
" J. P. Sugg,	Tarboro',	"	"
" H. T. Bahnsen,	Salem,	"	"
" Geo. N. Ennett,	Sneed's Ford,	"	"
" Chas. Duffey,	New Berne,	"	"
" W. W. Lane,	Wilmington,	"	"
" R. L. Cowan,	Rowan Mills,	"	"
" Jas. L. Robinson,	Wilmington,	"	"
" W. J. Love,	"	"	"
" J. B. Walker,	"	"	"
" David D. Sloan,	Sampson Co.,	"	"
" James McKee,	Raleigh,	"	"
" L. L. Alexander,	N. Hanover Co.,	"	"
" Willis Alston,	Littleton,	"	"

Dr.	W. J. H. Bellamy,	Wilmington,	North	Carolina.
"	Geo. F. Lucas,	"	"	"
"	Walter Brodie,	Whitakers,	"	"
"	A. S. Jones,	Warrenton,	"	"
"	H. Otis Hyatt,	Kinston,	"	"
"	J. L. Knight,	Tarboro',	"	"
"	C. S. Killebrew,	"	"	"
"	D. M. Buie,	Wilmington,	"	"
"	W. T. Ennett,	Rocky Point,	"	"
"	D. McL. Graham,	Point Caswell,	"	"
"	W. I. Royster,	Raleigh,	"	"
"	Geo. Fields,	Warrenton,	"	"
"	C. G. Cox,	Richlands,	"	"
"	G. Gillett Thomas,	Wilmington,	"	"
"	V. N. Seawell,	Wallace,	"	"
"	Geo. S Attmore,	Newbern,	"	"
"	S. B. Flowers,	Mt Olive,	"	"
"	P. W. Young,	Oxford,	"	"
"	Jno. McDonald,	Washington,	"	"
"	Francis Duffey,	Catherine Lake,	"	"
"	L. L. Staton,	Tarboro',	"	"
"	T. P. German,	Ridgeway,	"	"
"	A. G. Carr,	Durham,	"	"
"	Jno. A. Allison,	Statesville,	"	"
"	J. B. Gaither,	Salisbury,	"	"
"	J. M. Hadley,	La Grange,	"	"
"	W. G. Johnston,	Farmington,	"	"
"	W. J. McLinden,	Wadesboro',	"	"
"	Josh. W. Vick,	Selma,	"	"
"	Isaac E. Green,	Warrenton,	"	"
"	P. L. Murphy,	Wilmington,	"	"
"	Joseph Graham,	Charlottee,	"	"
"	J. W. Miller,	"	"	"
"	John L. Henderson,	Mt. Pleasant,	"	"
"	J. R. Wilson,	Harris' Depot,	"	"
"	Richard Anderson,	Albemarle,	"	"
"	J. S. Blair,	Harris' Depot,	"	"
"	J. F. Miller,	Goldsboro',	"	"
"	S. J. Alexander,	Randalsburg,	"	"
"	H. K. DeArmand,	Pineville,	"	"
"	J. P. McCombs,	Charlotte,	"	"
"	Thomas S. Duffey,	Rutherfordton,	"	"
"	O. P. Houston,	Mt. Ulla,	"	"

Dr. S. J. Gilmer,	Concord,	North	Carolina.
" Jno. Fink,	"	"	"
" Thomas J. Moore,	Charlotte,	"	"
" E. S. Foster,	Louisburg,	"	"
" A. A. Hill,	Lexington,	"	"
" J. H. Baker,	Tarboro',	"	"
" J. B. Hall,	Scotland Neck,	"	"
" J. M. Richardson,	Lincolnton,	"	"
" T. D. Haigh,	Fayetteville,	"	"
" Alexander Montague,	Rolesville,	"	"
" L. J. Picot,	Littleton,	"	"
" David N. Sills,	Castalia,	"	"
" Jno. A. Drake,	Battleboro',	"	"
" W. C. Murphey,	Magnolia,	"	"
" W. J. Cooke,	Louisburg,	"	"
" F. J. Thorpe,	Rocky Mount,	"	"
" Joshua Taylor,	Tarboro',	"	"
" D. W. Bullock,	"	"	"
" W. H. Whitehead,	Battleboro',	"	"
" C. W. Eagles,	Sparta,	"	"
" R. A. Sills,	Nashville,	"	"
" R. H. Speight,	Tarboro',	"	"
" C. E. Moore,	Battleboro',	"	"
" H. G. Land,	Poplar Branch,	"	"
" R. J. Grimes,	Robersonville,	"	"
" W. C. McDuffie,	Fayetteville,	"	"
" B. W. Robinson,	"	"	"
" Robt. H. Towles,	Raleigh,	"	"
" Henry Tull,	Kinston,	"	"
" A. V. Budd,	Egypt,	"	"
" R. R. Robeson,	Kyles' Landing,	"	"
" M. J. DeRossett	Wilmington,	"	"
" W. A. Murdock,	Mt. Ulla,	"	"
" James W. McNeil,	Fayetteville,	"	"
" J. D. McMillan,	Lumberton,	"	"
" W. H. McKinnon,	Fayetteville,	"	"

HONORARY MEMBERS.

Dr. W. T. Howard,	Baltimore,	Maryland.
" Otis F. Manson,	Richmond,	Virginia.
" J. H. Dillard,	Edenton,	North Carolina.
" F. D. Lente,	Cold Spring,	New York.

APPENDIX.

APPENDIX.

[A)

ESSAY

On STATE MEDICINE and PREVENTABLE DISEASES.

BY S. S. SATCHWELL, A. M., M. D.

Mr. President and Fellow Members:

The majority of men are ignorant of the aims and ends of the true physician. It is difficult to convince the world that any man is unselfish in motive or disinterested in action. In an age like the present, distinguished above all others for progress, as well as for the predominance of self-love and self-interest; when so many medical men fall short of duty; and when ministers of our holy religion do not themselves observe the charity and godliness which they preach; it is extremely difficult to induce the community to believe that a body of men like the medical, respectable in numbers, attainments and skill, as well as large in soul and intellect, are willing to forget self for a season and to unite and work for the benefit of the outside world who cannot and will not appreciate the medical profession, nor thank its members for medical service performed to them. The honorable history of our own honored and useful State Medical Society exists in verification of this truth. The hard battles it has fought, the brilliant triumphs it has won, and the effective progress it has made during the past twenty-three years of its active

existence, have failed to convince the majority of the people of North Carolina that our objects are not selfish, alone for the benefit of the medical profession, and that our annual meetings are not held for the purpose of arranging fee bills, and for imposing in some way unrighteous exactions and unjust assessments upon the people. So universal has this belief been, and so busy have demagogues in our own regular ranks, and demagogues and tricksters without, been in spreading and enforcing this slander, that most of those who have borne the heat and burden of originating and sustaining this Association, have had their names continuously wrung upon the public as medical tyrants and exorbitant chargers for medicines and professional services. It mattered not that we have constantly kept our banner hung upon the outer wall with its truthful inscription, that our objects are high and noble, that our only aims are the knowledge and application of the best means of curing medical and surgical disease, to investigate the causes, as well as to ameliorate and prevent the various diseases and afflictions of our common humanity. It was not effective to silence our false accusers that the members of this Society have done their full proportionate share, in that great great work of decreasing the bills of mortality in this country and of prolonging the average duration of human life, which has been and is now one of the glorious achievements of our always noble and ennobling profession. It did not suffice to demolish these false charges that our most illustrious dead in the medical profession of the State, who were patriots, true men, good citizens, were members of this Medical Body, men who lived and died in the medical harness, such of our members for example as Drs. James E. Williamson, Benjamin Robinson, Sr., James Norcom, James H. Dickson, Thomas N. Cameron, William C. Warren, J. J. Phillips, C. W. Graham, John W. Hutching, James F. McRee, Sr. and Jr., William H. McKee, Charles E. Johnson, and others, who, like them,

added lustre to the profession and the State. It has not been enough for the members of this Society to empoverish themselves by long and faithful attendance upon those who have not paid and will not pay them. It extorts but little admiration and less praise that though the service of our prevailing system of practice in North Carolina has entailed poverty upon ourselves and our families, still, true to the instincts and tradition of the profession, we continue to attend gratis the poor, and needy, and suffering. It secures us, amid these false accusations and the prevailing selfishness and demoralization, no credit for State pride and devotion, that our members are the readiest and most patriotic in showing that we have not alone a fine climate, splendid soil, great natural advantages, and magnificent resources as a State, but that North Carolina can step boldly forward and challenge the best to comparison and competition in these and various other selections that make a State great in material wealth, virtue, manliness and simplicity in the character of her people or strong and abiding patriotism. Thus it is that these pioneers of medical improvement and reform in North Carolina, and those who have continued to carry forward and now carry on this important and much needed work, have been and continue to be the objects of misconception by some and misrepresentation by others. The virtuous forbearance and heroic endurance with which these assaults have been borne and the manly spirit shown in repelling them, have had much to do in giving us the success which we have gained, especially within the last few years, and afford additional evidence that in enterprise, heroism, wisdom and skill, the medical profession of our State need not shrink from a comparison with that of any other State.

But this inappreciation of the true physician, and this opposition in our State to the union and organization of the profession for the advancement of medical science and

the good of humanity, arises not so much from an inherent disposition of the masses to oppose what is best for them as from an insidious form of charlatanry which exists in our own regular ranks, seeking every opportunity to array the people against true science and those who are its ablest and best exponents. The people are honest, and will not oppose what is conducive to their welfare and happiness, when once convinced that such a plan or improvement is best for their good. They are not to blame as much as that large class of demagogues and tricksters in our own regular pale, whose success in business depends much less upon a knowledge of the science and art of medicine and surgery than for skill and proficiency in that dark and occult science of obtaining practice known under the name of Black Arts in Medicine. After acting in unison with that tribe of political and clerical demagogues to be found in every community, it is not to be inferred that all of our brethren who practice these arts are destitute of professional attainments. Many of them are well informed, and until perverted in principle, were capable of succeeding in an honest and legitimate way. But unfortunately, as experience shows, when once the habit is formed of obtaining practice by ways that are dark and plans that are low and mean, it is hard to be abandoned. They not unfrequently try their hands upon the profession itself through newspapers and even medical periodicals whose false statements are made as facts, and imaginary cases detailed by men who are thinking alone of self-advancement, caring nothing for any injury they may do to their professional brethren, and indirectly to the community at large. If any new step is taken for the improvement of medicine or for the promotion of the public health, whether by voluntary effort on the part of one or more true medical men, or by the introduction of a measure into the legislature of a sanitary character, forthwith these gentry pounce down upon it, perverting its purpose, falsifying the facts, and

poisoning the public mind against its medical supporters, and by cowardly inuendoes and groundless attacks, injuring the very profession they falsely profess to regard with devotion. In these and similar ways our professional standard has been lowered, the influence of the medical combinations for good been weakened, and the profession itself stabbed in vital parts by traitors and apostates.

But, thanks to the kind nature as well as stern demands of our advancing civilization, the strongholds of this subtle imposture, nourished by the ignorance and prejudice in which it nestles, and upon which it erects its outposts, are being demolished by the resistless march of the blazing lights of knowledge of the nineteenth century. The mandates of the law of public necessity now demand that science shall be popularized. This great American principle of popularizing the useful arts and sciences, and of forbidding their confinement as of yore in halls of learning and cloisters of Universities, has taken deep hold upon the popular will, and is more than ever receiving practical recognition and enforcement in the legislation of the country. In other words, if ours is a noble and scientific profession, we must use the necessary means to make the masses understand it as such. This cannot be done by abusing their ignorance. It would be as unjust and as unreasonable as it would be to abuse an infant for not knowing how to read, until taught to do so. Professions are respected just in proportion as they respect themselves, and observe truth, jusice and integrity. It is because doctors do not thus deport themselves that our professional standard has become lowered. When we have become better organized, and come to act more as one man in all those things which the humblest of us know to be a common duty and a plain principle of right, just so soon shall we be able to cause the people to know that the desire and the purpose of the true physician is not alone to cure and to ameliorate but to prevent

disease. And this brings me to advocate the spread of knowledge among them as to the cause of disease and the laws of health. In other words, I come before you now with a PLEA FOR STATE MEDICINE AND THE PREVENTION OF PREVENTABLE DISEASES.

It is the acknowledged duty of our Profession to educate and form public opinion in relation to sanitary science, and upon all matters affecting the science of medicine, in which the people are interested. Spread this knowledge in every community and you will enforce conviction in the popular mind that it is more to the interest of the masses than to physicians to banish quackery from the land. When thus convinced, you will find them aiding us in our onslaughts upon empiricism. Popularize this knowledge and you will not find large numbers of legislators, as now, viewing with grave suspicion measures introduced before them that are calculated to advance medical science and to protect and secure the rights of the medical profession. But you will find more numerous than ever members of the legislature acting and voting for that established principle of legislative and political economy that laws which discriminate in favor of medical science and the elevation of the medical profession are enactments which contribute to the best interests of their constituents and to the general good. But in order to secure popular sympathy for our medical associations, and to cause the populace to properly respect us, we must be honest ourselves, and instead of leveling the concentrated fire of our batteries upon those moving armies that march under the gilded forms of quackery, we must move in a more solid body and in a more fearless spirit upon those more insidious forms of charlatanism which exist in the regular profession itself.

It is no new thing to talk and write about state medicine and enactments to prevent disease—it is a material element of professional civilization. Laws for the promotion of the

public health have been recognized in almost all civilized countries. Health boards and health laws constitute a part of the machinery of government in most of the countries of Europe. In a number of the States of the American Union they have been wisely introduced and are working well. Not until the last few years, however, have they become as popular in the new country as in the old. There has existed a prejudice in North Carolina against them, because of a misconception by some, and a misrepresentation by others, of their objects. This prejudice, however, is giving way to the spread of popular science and to the progressive knowledge and humanity of the times. It is an auspicious time for our State Medical Society to take a more advanced step in this direction, and to show in a more direct and practical manner a wise appreciation of our duties in this relation by introducing new measures looking to a decrease in our bills of mortality and to an improvement in the health of the State.

There exist the most abundant and convincing facts, constituting irresistible and conclusive arguments why this Society should step boldly forward with new propositions for carrying out this important feature of our high mission of improvement and reform. Let us glance briefly and hurriedly at some of these reasons. If no other good results than simply to direct public attention to the important subject of preventable diseases, a germ may be planted from which may spring great good to the public. Glancing at only a few of the preventable diseases, it may be stated that the zymotic diseases, such as small pox, cholera, scarlatina, typhoid fever, dyptheria, &c., come under this head, as we all know. To show the terrible ravages of this class of diseases, no better illustration can be given than by reference to mortality in England, which we are aware is one of the most enlightened nations of the world. Let one of her ablest medical men, Dr. Curtis, who was President of the

London Society in 1874, speak on the subject. He says that "A statement expressed only in figures, when it deals with numbers larger than those of which we have habitual practical experience, gives rise to but faint conceptions in the mind. But even when thus stated, the mortality from the zymotic diseases is startling. Taken collectively during five successive quinquennial periods, from 1847 to 1871, these diseases, in the period from 1847 to 1857, destroyed the lives of 512,261 persons, out of a total mortality of 2,028,367, or occasioned one death in 3.96. From 1852 to 1856 they destroyed 472,690 out of 2,082,346, or one in 4.4. During the whole twenty-five years they caused the loss, in round numbers, of two millions and a half of lives, out of a total mortality of 11,000,000, or one death in 4.48, the exact figures being 2,482,538 and 11,153,063. If we add another half million of deaths for another five years, we arrive at the result that three millions of people, a number approximately equal to the population of London, are killed by zymotic diseases in the course of each generation." Thus it it was in England, says this eminent physician. We know enough of the fatality of these diseases in the United States to warrant an expression of belief that the mortality has been no less proportionately in our American population, and that North Carolina has had her full share of these deaths. But listen further to what another of England's favorite physicians says. Mr. Simon, who is at the head of the sanitary department of Great Britain, says in a recent report, that the death rate in England from preventable diseases is one out of every three deaths. When we reflect that the cause of most of these deaths was susceptible of removal, we are astounded at this terrible array of tables of mortality. These three millions of deaths were caused by preventable diseases, such as sanitary science in its onward march and glorious achievements will in the lapse of time eradicate from civilized nations of the earth. The injury

does not cease with the dead. We have to consider also the impaired constitutions of those who, though afflicted with such disease, still survived, to propagate disease by the law of inheritance. The injury done by propagation from this vitiated source, and the burden imposed upon the State in caring for those thus disabled from taking care of themselves, appeals for solemn thought from all, especially from those who have the power to interpose antagonistic legislation.

Nor is this all. Let us introduce another reliable English author, Dr. Carter, and remember that his remarks apply as well to our own country as to England. "Upon the whole, then," says he, "I think I am entitled to say that the effect of preventable diseases in this country (England) every year, is to inflict upon the community a pecuniary tax of not less than three millions sterling, and probably of much more than that sum; to sicken at least six hundred thousand persons; to destroy prematurely at least one hundred thousand lives, many of them of the highest value; to cripple in some way or to some extent, in mind or body, an unknown number of victims, leaving them to be more or less incumbrances to their own generation, and to be the progenitors of children who will hand down an inheritance of sickness or debility to generations yet to come; and lastly, besides causing an incalculable amount of merely mental sorrow, to entail physical misery, destitution, social degradation, and even lapse into crime, of many of those whose mainstay in life has been destroyed. It is often a wholesome mental exercise with reference to arrangements to which we have become accoustomed, to stand for a moment, as it were, aloof from them, and to ask ourselves how we should regard them if they were offered for our acceptance for the first time. I think it cannot be doubted, if we could place in this light the calamities and evils that I have tried in faint outline to describe, that we should all

look upon them as something too monstrous to be endured with patience. We should say that they throw into utter insignificance most of the so-called great questions with which politicians occupy themselves, and that they imperatively demand the most strenuous efforts for their removal. But so absolute is the dominion of Labit over the human mind, that we now suffer these evils to flourish, practically unchecked, and make scarcely a single effort to control them."

A sad but instructive lesson upon this subject of preventable diseases, as well as of the disposition of man oftentimes to persist in wrong in the face of a clear demonstration that he is wrong, is afforded in the history of the treatment of scurvy. "It was," says another, "in the year 1593, that sour juices were first recommended by Albertus, and in the same year, Sir R. Hawkins cured his crew of scurvy by lemon juice. In 1600, Commodore Lancaster, who took out the first squadron of the East India Company's ships, kept the crew of his own ship in perfect health by lemon juice, while the crews of the three accompanying ships were so disabled that he had to send his men on board to set their sails. In 1636, this remedy was again recommended in medical works on scurvy. In 1757, Dr. Lind, the physician to the naval hospital at Hasler, collected and published in an elaborate work these and many other proofs of its efficacy. Nevertheless scurvy continued to carry off thousands of sailors. In 1780, two thousand four hundred in the channel fleet were effected by it; and in 1795, the safety of the channel fleet was endangered by it. At length, in that year, the admiralty ordered a regular supply of lemon juice to the navy. Two centuries after the remedy was known, and forty years after a chief medical officer of the government had given concise evidence of its worth, the admiralty, forced thereto by an exacerbation of the evil, first moved in the matter. And what had been the effect of this amaz-

ing perversity of officialism? The mortality from scurvy this long period had exceeded the mortality by battles, wrecks, and all casualties of sea life put together."

Happily such perversity no longer dares to infest humanity, and the scurvy is now, owing to the progress of medical knowledge, almost unknown among us. Who knows that the fell-destroyer, Consumption, is not destined likewise to be banished from the world, or to be eradicated from our sad list of incurable diseases? True, it is largely hereditary, but investigations within the last few years demonstrate that its development is very greatly dependent upon preventable causes, such as want of drainage, badly constructed houses, want of ventilation, bad food, &c. Every careful medical observer in Eastern North Carolina, for the past few years, knows that the increased prevalence and fatality since the war of this disease among the negro race in all these Eastern Counties is greatly owing to their destitution of proper food, clothing and other means of health. Within the last decade the negroes are dying with consumption, scrofula, and typhoid fever as never before. Medical enquiry, both in this country and in Europe, has shown that typhoid fever is very greatly dependent for its development and propagation upon preventable causes, such as bad drainage, impure water, adulterated and unwholesome milk, bad food, &c. Hundreds upon hundreds of valuable lives are annually lost in our own State by this disease which might have been preserved if common sense had been regarded and a due regard shown for those every day sanitary precautions so lamentably disregarded by the people of North Carolina. Causes of disease exist daily around us on all sides that could easily be removed if our people would only exercise a little more common sense in regard to their health. Often, very often, is it the case that the very water and milk which we drink carry into our systems the seeds of fatal disease. The very impurity of our drinking water

often brings on typhoid fever and other diseases. The people need to be aroused to these facts. It is the duty of our profession to go to work more earnestly in these matters, and after informing ourselves better as to the palpable causes of disease, then to go forth to the community and sound the alarm. It is a common opinion among the ignorant that as physicians live upon the infirmities of the people, we do not desire to decrease these infirmities. This is a great mistake as we know, and does us much injustice. Those who cherish the delusion know nothing of the warm humanity and enlarged views of duty and of life, which inhabits the bosom and controls the action of the true, conscientious physician. But what if the true physician is misunderstood, unappreciated, misrepresented, even persecuted? He still pursues his noble mission, and, with that true heroism which always finds a congenial home in the heart of such a man, is unawed by opposition, unmoved by praise or censure.

It is this which impels him to cry out for help for his suffering fellow-beings, when he sees them daily going down to the grave by hundreds on account of diseases which could be prevented by a little attention to the plain laws of hygiene. The enforcement of sanitary laws is decreasing in a very decided manner the mortality in the human family. In England alone the mortality has been decreased twenty per cent. within the last ten years. In our own country the decrease has been as great if not greater from data now accumulating. It is in the power of good health-laws to eradicate almost entirely certain destructive diseases, or to confine them within certain restricted localities where they would do but little harm. Cholera should not be allowed to prevail as an epidemic; but, from our knowledge of its propagation, should be confined to the jungles of India. That terror of our people and scourge of humanity, small pox, could be eradicated by a rigidly enforced system of

compulsory vaccination. The injury done to commerce by even a mild epidemic of this disease in any of our leading cities is very great. Recently our own city of Wilmington sustained very serious damage in her mercantile and other business interests, by only a few cases of small pox that existed there. There is higher authority than mine for the statement that yellow fever should never be allowed to visit our shores. Many of the leading physicians of the country believe it to be an exotic, and that if the national and state governments would act in concert in the adoption and enforcement of proper quarantine laws, this terrible pestilence which "walketh in darkness and destroyeth at noonday" would no longer be permitted to obstruct the growth and prosperity of our Southern towns and cities, and, in its deadly march, to envelop them in the dusky drapery of gloom and mourning. Our politicians and statesmen are continually telling us of the obstructions to the material prosperity of North Carolina in the effects of the war, and in our defective system of agriculture, of labor, and of government. There have been and still continue evils, great evils, in these respects. But the healing properties of time will overcome and remove them, as they are but temporary in duration. One of the paramount obstacles to the improvement and prosperity of the State is the continual existence of causes of disease that can, and should, be removed. Take that subtle poison, malaria, for example, which, in some of its various forms, has stolen and continues to steal the lives of so many of our valuable citizens from our middle and eastern counties, towns and cities. This insidious poison, intertwining itself into our inhalations and tissues, mixing up and complicating with almost all our diseases and in all seasons, and which is constantly sapping the energies and taking the lives of our people, continues to maintain full sway, and yet it is preventable. That is to say, malaria can, by proper drainage and culti-

vation, be so effectually suppressed, that its effects correspondingly cease. I know there are those who express doubts of the existence of malaria. But judging, not alone from my own observation and experience, nor yet from the recorded observation and experience of hosts of the ablest medical observers and medical philosophers of all ages and countries, but also from the acknowledged tests of medical evidence and medical logic, I am as confident of the existence of this poison of malaria as I am of my own existence. I say nothing of those debateable points of the form of its existence and manner of its action. It may be gaseous, animalculæ, or may exist as vegetable spores. I do not enter the inviting field of malarial literature in these and other relations. I only contend now in hastily passing along, that whatever malaria may yet, under continued investigation, prove to be, all the factors of its production are under the control of man—can be removed, save one, heat, and this of itself cannot produce malaria. Is it not better to enter the lists of opposition to this great foe of North Carolina—to seek to annihilate this great enemy to our lives and prosperity—than to sit with folded arms and in apathy submit to its sway? Drainage is the antidote, with that cultivation which always follows. The increased value of property thus benefited and the consequent increase of taxation and revenue accruing to the State, would justify our legislators in considering this question hereafter. The money our people spend for quinine would do much in draining their lands. Inaugurate hereafter some judicious system of draining the hot beds of malaria in our State and you will do more than any set of politicians or platform makers can accomplish to cause North Carolina to spring forward with giant strength on the road to prosperity and happiness. But it is impracticable, it will be contended, because it is too herculean an undertaking, and will take a long time. So it is a great undertaking and will take time.

But nothing great was ever undertaken that did not take time and was not surrounded with difficulties. It was by drainage that ancient Rome was made healthy, from being one of the most unhealthy cities in the world. It was by a system of sewers that she became the influential power of the world. She was the seat of so many fatal epidemics that the Romans actually erected a temple to the Goddess Febris. Here was malaria. The epidemics arose from the waters which came down from the Palatine, Aventine and Tarpeian hills, and stagnated in the plains below. When they were drained by sewers into the Tiber by direction of Tarquin, Rome became proportionately healthy, and so continued until, after the invasion of the Goths, the aqueducts were destroyed, and the city again became the seat of an annual paludal fever as in her earlier days.

Facts such as these are enough to urge us onward in our mission of preventing as well as curing disease. If this Society can devise some means by which in the future these richest portions of our State can be rescued from malaria, and by which yellow fever may never again be allowed to plant its seed upon the soil of North Carolina, the members will achieve for themselves imperishable honor. Future generations will erect monuments to our memory which will defy the wear and tear of fickle popular sentiment, and be so enduring as to resist for all time the storms of an ever changing world.

There is another class of preventable diseases which demands more attention from the physician and the public, and in relation to which health-laws should be enacted and enforced. I mean those diseases which arise from a disregard of hygiene in our schools, prisons, and other public institutions. The progress of sanitary science cries aloud for reform in the general hygienic management of our private schools and in our public institutions generally. Humanity weeps at the confinement of our fellow-beings in

dark, damp, filthy cells, without ventilation. Punishment is intended to restrain liberty and not to deprive a man of the indispensable element of good, fresh air, given to us by a merciful Creator for comfort and health. "God said let there be light," but man in dealing with his fellow-man disregards this injunction of omnipotent Jehovah. All living beings demand light and sunshine. Without these elements plants grow sickly and die. The necessary physiological changes in our own tissues occur imperfectly in the dark. And yet parents make hot house plants out of their own children, housing them all the time, and they become in consequence, pale, weakly, frail beings, ready, when assailed by any slight disease, to drop into the grave. And then go to a majority of our fashionable female boarding schools, you will find the beautiful, little rosy-cheeked girl just entered by fond parents, who *had* observed the laws of health in her case by allowing her to breathe the out door air of heaven, and to romp and play in the yard and upon the lawn. She is now lively and strong, and rich blood nourishes her tissues But alas! her mind is at once over-tasked. She is not allowed to take exercise. Her sleeping apartments is not ventilated. She stoops over with her elbows on the desk, and her lungs are not inflated because of her constrained position all the day long. Her appetite of course fails The food is not good. Still the stimulus of the school and the spirit of rivalry sustains her. Good reports of her progress make glad the hearts of those at home. She graduates with perhaps the first honor. She returns home with all her blushing honors upon her to receive the congratulations of adoring parents and warm friends. She marries. In a year or two the physician is called to see her, as, with lustrous eyes, sparkling intellect, and the graces of life, she lies upon a sick bed. There is now however a fatal bloom upon her cheek. It indicates that as her mind was prematurely developed, the body prematurely decayed.

Her babe is in the cradle. Unable to nourish the infant, other hands render that service. Months pass away. The mother is laid in the grave. Hot weather comes on, and with it cholera infantum. It sweeps away the child to join the mother in the spirit land. This is no tale of fiction. Every physician who hears me knows from his own experience that I am but rehearsing the realities of daily life.

With a brief allusion, Mr. President, to preventable moral diseases which afflict humanity, and that come within the scope of study and duty of the progressive physician, and I will relieve the patience of the Society. The invasion which science is making upon all forms of ignorance and error, constantly presents to the intelligent physician new fields of thought and work. No profession is doing so much as ours for the overthrow of false theories. No profession recognizes so fully as ours that great principle of modern civilization that nature's laws are fixed and unchangeable, and must be consulted in law and government as well as in the material and educational interests of man. It is the true physician who was the first to lay down the proposition that many of the moral diseases with which poor humanity is afflicted are preventable. True, opposition arises to this doctrine at the very threshold of its discussion. It is rendered somewhat debatable on the ground of the old gospel saying, that the sins of the father shall be visited upon the children, even unto the third and fourth generations. The issue, however, is not as to the facts whether this will be so, or ought to be so, but whether steps should not be taken, means should not be used, for preventing this entailment by fathers of their iniquities upon their children. Bodily peculiarities, as well as mental tendencies and peculiarities, are under the established law of hereditary transmission, as clearly transmissible as are diseases of the human organization. Nor is this all. Moral infirmities, the tendency to commit crime, the disposition to steal, to

tell lies, &c., seem to be transmissible from parent to child, so that the law of inheritance, as the people and law-makers of the land should be taught, embraces mental and moral as well as bodily characteristics and physical diseases. Thousands and tens of thousands of cases and occurrences meet us in illustration and demonstration of this general proposition as we journey through life. The moral infirmities of our nature as inherited from our fathers and mothers, and from still older ancestral line, are seen in every day life. There exists high authority for the statement that much of the crime daily committed may be traced back for its source to the ancestors of the criminal. This, when increased by intermarriage with those of similar moral proclivities, may create such a disposition for crime that an individual may have an almost irresistible inclination to commit crime. We all know how difficult it is for some people to avoid telling falsehoods. Equally is it true that some persons will steal, however often or severely punished. The history of our own penitentiary, and of crime and penal punishment in North Carolina since the war, attests the truth of these statements. Men who have served their allotted time in prison, for periods varying from six months to twenty years, and for crimes clearly proved, will notwithstanding repeat the offence the first opportunity after being released from workhouse or penitentiary. That this feature of my subject is one demanding thought and investigation as to remedies for the evils referred to, no one can question. Are there no additional remedies in the wide domain of moral suasion and legal enactments that can be inaugurated? Are wicked fathers to be allowed to transmit their iniquities to posterity? Shall the moral nature of hundreds and thousands become tainted because of the wickedness of one or two persons? Shall no check be given by law to these polluting straws of depravity? Proof exists upon the authority of a physician of undoubted veracity and relia-

bility, that even in the State of Massachusetts lived a woman who was the source from which had descended six hundred drunkards, lunatics, imbeciles and criminals. She was thrown upon the world, says this physician who took the trouble to trace her history, as well as the history of these descendants, without any one to care for her, and she fell into poverty and into the sloughs of vice and degradation. When we consider that each of these drunkards, lunatics, and imbeciles became the source of transmitting drunkenness, insanity, and imbecility to others, we recognize the injury to the community at large and the practical importance of the whole question. If these views are sound is it too soon to announce that the moral health of the State should be improved, not alone by natural selection and moral suasion, but also by legal compulsion? Should there not be a compulsory law of the State that in marriage and other relations of society there should be not only a free, voluntary, willing acquiescence, but a forcible regard had to well established physiological and sanitary laws? The suggestion is somewhat novel, and most of our law makers will view it as chimerical and absurd. The public mind is not ripe for the question. It must go through a course of agitation before it is ready for introduction into our legislative halls. It takes time to prepare the public mind for thought, much less for action, in a matter so intimately interwoven with the welfare and happiness of the people. But it is not too soon for medical men, always pioneers in schemes for ameliorating the condition of the human race, to begin the investigation and agitation of a question fraught with so much interest. Suppose it does take time to arrive at a good result? Has it not taken the world centuries to reach its present improvement and progress? Great things move slowly and cannot be accomplished in a few years. The man who maintains to-day a new truth in science or some new principle of needed legislation that is founded upon

the granite rock of wisdom and right, will be opposed and may be ridiculed, sneered at, and even persecuted as was Galileo and others, but let him remain steadfast and active in the sustaining consolation that science is immutable and progressive, and that truth is mighty and will prevail. New questions in sociology, in the present status of society and of human thought, must be pondered on for years and years before action is taken. Throw a pebble into the ocean today and motion may produce a wave which may cause such a commotion in other waves as may finally stir the whole broad ocean. It is generally the case that the tree which we so tenderly care for and nourish arose from a seed or sprig planted by other hands.

And now, in conclusion, a brief word as to the best ways and means of removing these preventable causes of disease, of lessening the mortality arising therefrom, and of eradicating preventable deformities and infirmities from our physical, mental and moral nature. It cannot be done under the operation of that fatally sedative doctrine yet popular with so many, that "what was had to be, and that there was no use trying to legislate against evils of this sort." Nor yet will this sort of needed work gain much stimulus from the fond belief of so many intelligent people that every kind of sickness must be attributed to an angry God, in punishment of specific sins committed by us. This is not true in the general sense in which it is taken. Disease arises from violations of natural laws, and of course entails punishment upon the offender who is guilty of this violation. Many commit this transgression ignorantly and of course suffer therefrom as much as those who violate the laws of health knowingly. A large number of those who thus bring disease upon themselves would not do so if they were informed as to the means of avoiding it. It is our duty to teach the people laws that produce disease, and how causes can be removed.

Among the most efficient means of spreading this information and securing the ends and objects advocated in this paper, would be the establishment upon a proper basis of a *State Board of Health.* It ought to be established by the Legislature as one of the institutions of the State. This State Medical Society ought by law to be made the State Board of Health, as the Legislature of Alabama has wisely made the Medical Association of that State the Board of Health of the State. The various County Medical Societies of Alabama, which are auxiliary to the State Society, are by law made auxiliary Boards of Health to the general State Board. Likewise should our County Auxiliary Medical Societies be made auxiliary Boards of Health to a State Board of Health. Through a Committee or a Board appointed by the State Medical Society reports are annually made to the Legislature of Alabama, through the Governor, upon the health of the State, the cause and location of its endemic and epidemic diseases, the medical topography of its various sections, with suggestions and recommendations as to sanitary science and hygiene as it bears upon families, schools and colleges, and the penal and charitable institutions of that State. I refer to the machinery of the bill establishing and controlling the Board of Health of Alabama, and of the system of operations of that Board and the County Boards under it, not only as illustrating our needs and necessities in North Carolina in this relation, but because the bill creating the same, and the general system and most of the provisions of the same, are in the main such as we could wisely imitate in the inauguration of a State Board of Health in North Carolina. Under the Alabama law no possible pretext is afforded for medical and political demagogues to wring the charge upon the people that this proposition was to create one or more paying offices for medical men, for no office of profit is created or anticipated. The offices are honorary. The Boards are therefore self-

sustaining, outside of some little trifling expense incident to all such humane and scientific institutions. In the empoverished condition of our struggling people, our profession will be the last to create fat offices for selfish purposes of its members, or to impose a burden of taxation upon them at any time, much less in their existing poverty. But this very poverty makes it still more the duty and the interest of the State to look after the health of its citizens. The health of a State is a very large portion of its wealth, and in this important relation, as well as in common justice and common humanity, the Legislature should legislate for the health of its citizens. This is the idea, and that doctrine of political economy which is an element of advancing civilization. To the credit of the medical profession of our State, neither this Society nor any body of medical men have ever asked the Legislature for the enactment of any law for our own exclusive benefit. We should make it an inflexible rule to ask from law-makers nothing which does not inure as much to the public welfare as it would for the benefit of our own profession.

This proposition for the establishment of a State Board of Health has been endorsed by that youthful but vigorous Auxiliary Society—the Eastern Medical Association of our own State. A Committee was appointed at the semi-annual meeting of this association at Wilmington, in December last, to ask the support and co-operation of this parent body in the introduction of the matter in proper form to the next Legislature, and to ask that a State Board of Health be established. I have the honor to be on that Committee, and the presentation of this paper before this Society may be considered as a discharge, in part, of the functions imposed upon me by that progressive medical association. Its establishment would not interfere with the provisions of the charter under which our cherished State Society acts, nor with those high and noble objects which the society is so

laudably and successfully carrying out. On the other hand, it would, while doing so much good to the public, enable us to work still more effectually for the State, and would be a graceful and merited recognition by the law-making power of the progress of the medical men of North Carolina in the cause of science and humanity, and of their great usefulness to the good old commonwealth.

Truly does the physician of principle in North Carolina have a hard time since the war. Never, in any age or country, did the true and faithful members of the medical profession meet with more hardships, worse trials of poverty, more depressing cares and anxieties, than have this class of practitioners in the South since that terrible conflict. Many patients are wholly unable to pay, while a larger number still, amid the prevailing demoralization, will not pay, and there seems to be no law adequate to make them do it. The fact that we are not affected by those enervating influences of luxury and wealth which tend to relax the energies and restrain the genius of our brethren at the north and west, who are so much more fortunate financially, gives us some advantages as well as disadvantages, in the fact, as history shows, that medical science, as well as the cause of letters generally, has made the greatest strides where medical men have been poor, and unable to indulge in the enervating habits and appetites of luxury and wealth. Because of this and other reasons it is susceptible of demonstration that although there never was so much poverty in our profession in the south, there never was so much skill and inventive genius and self-reliance displayed, and there are not more deserving and successful physicians any where on the face of the earth than those now in practice in this war-desolated land. Then let us, amid all the disadvantages and discouragements which are now so peculiar to our profession here, move on with unfailing hearts and unfaltering steps in the high mission of curing a-

And pledging anew our devotion to our Society, which has done so much good, and triumphed over so many difficulties, let us again inscribe the stirring words *Excelsior*, and yet *Excelsior*, upon its untarnished escutcheon.

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CASES REPORTED.

BY HENRY T. BAHNSEN, M. D., SALEM, N. C.

CASE I.—THE DOLLY VARDEN.

In the Spring and Summer of 1872, a remarkable epidemic made its appearance in Forsyth and portions of adjoining Counties. Within three months between two and three thousand persons were affected by it. It attacked indiscriminately old and young, male and female. Even nursing infants and pregnant females were not spared. In no case, as far as I know, was it fatal. It went as it came, a dreadful, inexplicable experience, of which people even yet speak as an epoch or crisis in their lives. Even its causes are left to conjecture. It was as severe on the healthiest ridges as in the most malarial low lands. The rich as well as the poor suffered, and cases occurred, but less frequently, amongst the negroes. When the disease first made its appearance, its severity caused general alarm; but, as no case proved fatal, the epidemic, in the minds of some not affected, assumed a rather ludicrous aspect. A facetious gentleman happened to remark that it was as bad as the "Dolly Varden," a grotesque style of dress goods then coming in vogue. The name was seized upon and this was its cristening. It has ever since been so called.

The "Dolly Varden" was characterized by an excruciating pain, generally affecting one side of the chest and impeding, sometimes almost preventing, respiration. Occasionally the abdomen or extremities were the seat of the pain. Its onset was sudden and without premonition. In some cases a slight chilliness accompanied the first sensation of pain. The latter rapidly increased in intensity, the temperature meanwhile rising until in a few hours the strongest man would be writhing in agony, the skin burning hot, perspiration starting from every pore, respiration panting, and the heart beating from 130 to 140 times per minute. Unless relief was afforded this condition lasted from six to twenty-four hours; in some cases, with varying intensity for several days, when gradually the pain subsided, and with it the febrile symptoms disappeared, leaving the patient completely exhausted. Within twenty-four or forty-eight hours, and generally at the same hour of the day, the attack recurred, with varying severity, and this was repeated, in some cases, for a week or more.

The tongue was often clean, but generally furred when first seen by the physician. Constipation was by no means the rule. In a large majority of cases neither stomach nor bowels gave evidence of an abnormal condition until after the first attack of the disease. Even nausea was not a prominent symptom, although water, which was eagerly called for and greedily swallowed, was frequently rejected by the stomach. As might be expected from the foregoing description, after the final subsidence of the disease, there was generally extreme emaciation and exhaustion. Convalescence was usually rapid, but one often hears even yet complaints of health shattered by the "Dolly Varden," and some declare that they still feel similar pains upon exposure to cold, &c.

Whatever the poison was, it required but a short time for the system to be brought under its influence. Parties from

a distance were sometimes attacked after a two days' stay in the neighborhood, and I can recall instances of four or five cases developing in the same house, within twenty-four hours.

The first cases I saw varied considerably from the above type. Two twin boys, aged ten, were almost simultaneously attacked, in the middle of the night, after several hours of quiet sleep. When I saw them an hour afterwards they were gasping for breath, and crying and groaning with pain. The pulse was so frequent and irregular that it was not possible to count it, the skin intensely hot, perspiration excessive. The pain was referred to the abdomen, which was tympanitic to such a degree that the skin could scarcely be pinched up—the bowels rolling about with great noise. Complete relief from all the symptoms was almost immediately afforded by a dose of morphia administered hypodermically. Each of these boys had three recurrences of the paroxysms on alternate nights, in spite of large doses of quinia.

From the periodical character of the disease, quinia seemed to be indicated. It was repeatedly tried in the largest anti-periodic doses by myself and others, but failed entirely, and was speedily abandoned. The treatment which proved most satisfactory was purely symptomatic. The pain was readily controlled by opiates, and I frequently saw relief from all symptoms, including fever, ensue in half an hour after a full dose of morphia had been given. Turpentine was a most grateful external application to the seat of pain, and an effervescing saline, or Epsom salts, completed the list of remedies generally used. I treated with entire satisfaction a large proportion of my patients in this manner, without even seeing them.

CASE II.—SUB-GLOSSITIS.

A case of inflammation of the sub-lingual region, reported by C. Holthouse, is mentioned in Ashurst's Surgery. (Strictly speaking, the Greek and not the Latin prefix should be used before a word of Greek origin—Hypo-glossitis, not Sub-glossitis) Three cases, somewhat resembling the published description, have fallen under my observation, and, as I am unaware of the existence of any detailed account of this disease in the surgical text-books, I desire to have my cases recorded. The patients all lived at a considerable distance from Salem, and to each I was called in consultation, with a different physician. Two of the cases occurred in the same neighborhood and within three months of each other, the third two years later, and twenty miles in an opposite direction.

The patients were all hard-working men, of the better class of society, aged 55, 35 and 70 years respectively. In each case the attention was first attracted by a hard, circumscribed swelling in the median line, between the chin and hyoid bone. In the first two cases this had not been noticed more than a week before the whole sub-lingual space was occupied by an unyielding tumor, which forced the tongue against the roof of the mouth so as to separate the teeth from half to three-quarters of an inch. Externally, the convexity of the tumor projected more than an inch below the level of the lower jaw. In the third case more than two weeks were occupied in this process of development Pain was not much complained of, nor was there œdema or redness of the skin over the tumor. Deglutition was difficult, and intelligible speech out of the question. Dyspnœa was present only when lying down, and then appeared to be due rather to the accumulation of saliva, which could not be swallowed in that position, than to a swelling of the glottis. There was no fever, but in the progress of the case alarming

attacks of prostration came on, which could not be accounted for on the score of inanition, as reaction often set in without the aid of food or stimulants. In none of the cases was there any tendency to suppuration. In the two which recovered, absorption gradually took place, and in a few weeks all traces of the tumor had disappeared. The tongue was not markedly œdematous, as in glossitis. In the cases which recovered, the swelling remained at its worst four or five days. The first case I saw, died during the third attack of prostration, about the 14th day from the first appearance of the disease, and the seventh of its intensity. He lived twelve miles from me, and when I first saw him he had just rallied from the second attack, and was sitting up shaving himself. I recommended 5 gr. doses of quinia every sixth hour, and after incising the dorsum of the tongue, I made an incision through the frænum, and passed a probe without difficulty in various directions to the depth of perhaps two inches. The probe passed easily, but I found no pus. On the second night after my visit, the final attack of prostration came on. I was sent for only on the following evening, and found my patient completely collapsed—cold and pulseless, with quick, superficial breathing, and covered with a clammy perspiration. Even his breath felt cold, as in the collapse of cholera. He lived several hours after my arrival, retaining almost perfect consciousness. This final attack of prostration lasted about thirty hours. After death, a more thorough examination with the probe revealed only a succulent condition of the parts embraced in the tumor.

All of my patients had enjoyed the best possible health up to the time they were affected by this disease, and the youngest and oldest are now living and well. The oldest alone lived in a malarial region. The youngest had never had a chill, and the one who died had never known an

hours sickness since the Mexican war, in which he served as a cavalry officer.

The mildest case occurred in the youngest man, and he, with one or two others in the neighborhood, whom I did not see, recovered almost without treatment. To the one who died, I fear I did not give enough quinia. I was at that time too much afraid of it. Five grains were given every six hours between my two visits, supplemented by hot blankets to the surface, and the small amount of stimulants he was able to swallow, after the prostration came on. The youngest man had three or more attacks of prostration, but none of them lasted more than a few hours. The third and oldest patient I found given over to die. He was cold and pulseless, with the same quick respiration and cold breath that characterized the fatal case. Ten grains of quinia in an ounce of milk were given by enema every hour, and when he was able to swallow, one half as much was given by the mouth. He took nearly 100 grs. of quinia in about twelve hours, and experienced not the slightest inconvenience from its ingestion. Of course other stimulating and supporting measures were not neglected, but he believes, with his attending physician and myself, that the ¼ oz. of quinia saved his life.

I omitted to state that washes of chlorate of potassa appeared to exert no influence. In fact the mouth was not inflamed, and the most grateful application appeared to be iced milk. Catoplasms appeared only to inconvenience the patients.

CASE III.—LIVER DISEASE.

A peculiar affection, which is known amongst the common people by the above name, has occasionally appeared

in the neighborhood of Salem and Winston, N. C., within the past fifteen or twenty years. It occurs sometimes sporadically, but usually takes a localized epidemic character. At the present time it is prevailing in two localities ten miles distant from each other.

This disease is not malarious in its origin, nor is there any periodicity in its attacks. It occurs preferably in localities in which fever and ague have never been known. Neither do seasons nor changes of temperature exert the slightest influence. In itself it is not fatal, but old and debilitated subjects have occasionally so far succumbed to its effects as to fall an easy prey to subsequent complications. The onset of the disease is always preceded by general malaise, want of appetite, with furred tongue and a tendency to constipation. These symptoms may persist for a week or more. As in the "Dolly Varden," pain is the prominent symptom, but this pain is seldom except in the beginning of the disease, and then not always accompanied by febrile phenomena. The pain is invariably located in the umbilical region, extending thence occasionally up under the ribs and to the præcordial and inguinal regions. The abdomen is tympanitic in resonance, but is rather retracted than prominent. Percussion reveals no change in the size of either liver or spleen. The pain resembles much that of painter's colic, and the peculiar, cadaverous, dusky hue of the skin, which appears early in the disease and persists until convalescence is far advanced, makes the similarity to lead poisoning very striking. In some cases also a distinct blue line can be seen at the margins of the gums. The most careful examination fails to give evidence of lead either in the excretions, or in the drinking water, cooking utensils or any appurtenances of the affected household. Paralysis of the extensors never occurs. As a rule more than one member of a family is affected at the same time, but I have

never seen all sick at once. Some may be attacked even a month later than others, and one or more escape altogether.

The pain is sometimes tolerable, but unless controlled by opiates it is, for the most of the time, agonizing and has a markedly depressing effect upon the sufferer's imagination. Torpor of the bowels generally coincides with the pain. Purgatives, even calomel and drastics, have but slight cathartic effect, although their action is not usually retarded. The evacuations are generally of firm consistency, their color varying from a bright yellow to an ochrey brown, or even black. I never saw them clay-colored nor scybalous.

A mild attack has apparently yielded to treatment in the course of a week, but most persist for several weeks and some even for months, including relapses.

Treatment, as a general rule, has been most unsatisfactory. A strange circumstance in connection with this obscure disease is the fact that old women have no suggestions to offer and the most credulous dupe speedily discards his most valued patent medicines. Through fear that we might have overlooked some source of lead poisoning, the iodides, mineral acids, &c., were first given, their effects being at best only negative. The pharmacopœia was ransacked in vain for a satisfactory remedy. Even salivation was tried in our despair. External applications, from poultices to blisters, produced only negative results. In the hands of the more intelligent physicians, relief of symptoms soon became the main object; enemata took the place of violent cathartics, and morphia and chloral were freely used to subdue pain. In most cases there appeared to be no crisis; the disease slowly receded, leaving the patient in a most debilitated condition from which he only very gradually recovered with the assistance of iron and bitter tonics. In some mild cases, Taraxacum appeared to curtail the disease, bringing remarkable quantities of lithates away and establishing a sort of crisis.

[C]

TEN CASES OF EPILEPSY TREATED WITH THE BROMIDES, AS SUGGESTED BY BROWN-SEQUARD.

BY W. C. M'DUFFIE, M. D., FAYETTEVILLE, N. C.

I shall not enter into anything like a lengthy history of Epilepsy, either as to its pathology or the various modes of treatment recommended in this remarkable disease, but will give, briefly, some reasons for adopting a certain course of treatment.

We cannot now stop to consider whether the causes producing the paroxysms in idiopathic Epilepsy be disturbances of the cerebral hemispheres *primarily*, and *then* extending to the medulla spinalis, or *vice-versa*. One thing is clearly evident, viz: there is a great irregularity in the circulation of the blood in all cases of Epilepsy—a want of co-ordination between the nervous and vascular systems, and, as expressed by Dr. Williams in one of his Lectures—("Medical Gazette," page 1270,) "There is a monopoly of blood in those parts nearest the heart, especially in very anœmic subjects, in whom the blood is unequally distributed. The immediate cause may be moral or physical excitement, producing violent action of the heart—the carotids may beat forcibly while the extremities are bloodless and cold." This monopoly of blood he says, "has two effects; if the heart is much excited, it may set the whole blood in the nervous centres in circulation—the consequence is sensorial excitement, but in other circumstances we find not excitement of the censorial function but the reverse—stupor—while the spinal function becomes exalted to the highest degree."

The great practical inference from these observations is, that nervous susceptibility, as it is called, and the tendency to Epileptic paroxysms, depends, in a great measure, upon irregularities of the circulation ; and the indications for the prevention of these attacks is the adoption of means which will equalize the circulation, and render it steady and complete in every part of the system. In this view of the subject, therefore, we understand the *modus operandi* of the Bromide of Potassium in Epilepsy, in tranquilizing the action of the heart, and reducing its irritability.

Hydrocyanic Acid, upon the same principle, has been used in some cases with good effect.

I have carefully noted the treatment in ten cases of Epilepsy which have come under my care at different periods during the past five years And the success attending them must be my excuse for presenting this synopsis to the Society.

The first case, a girl of 12 years of age," had been subject to fits," as her parents expressed it, from her fifth year, irregularly, sometimes once but more frequently twice in a week. In her case the attacks were sudden loss of consciousness, with very slight convulsions. I prescribed for her the following mixture :

Bromide Potas. - - - -	half oz.
Bromide Ammo. - - - -	two dr.
Iodide Potas. - - - -	one dr.
Infusion Colombo, - - - -	six oz.
	mx.

A teaspoonful morning, noon and night, and at bedtime a double dose, two teaspoonfuls, in all about 25 grains of Bromide Potas. and 12 grains of the Bromide of Ammo. in the twenty-four hours. This course was persevered in for six consecutive weeks without any interruption and no other treatment, except an occasional gentle purgative, *which I have used in all the cases.* It certainly gives a new impulse

to the effect of the Bromide. From the time she began there were but two paroxysms. They occurred the first and second weeks. After this there were no symptoms of the disease. She continued the medicine for something over twelve months, and then it was left off. There has been no return of the disease for the past three years.

The second case was a boy of 9 years of age. Paroxysms twice a week; had been subject to fits five years. The remedy was given as in the first case, and continued with the same result. Continued it fifteen months. Not a symptom of the disease after the first month. This boy has now passed a year without the remedy or the disease.

The third case, a girl of fifteen years of age, had only had four or five attacks, occurring at intervals of one month. I prescribed the same and she never had a return of the symptoms at all. The menstrual function become fully and regularly established, and she did not continue medicine more than four months. She has been well for more than a year.

Fourth case: Man forty years old, with congenital malformation of right arm and hand. Had Epileptic fits from boyhood. This being a bad case, I used the remedy much more freely. I gave him sixty grains a day of the Br. Potas. and twenty of the Br. Ammo. This was kept up constantly for twelve months—one or two short intervals without the medicine. The effect was marvelous, the paroxysms becoming so slight latterly as scarcely to be noticed. He takes the medicine yet, though in greatly reduced doses, and has continued free from any severe symptoms. Still I believe he must continue it to preserve even his present exemption.

The fifth case noted was a young man 26 years of age, apparently in good health, but subject to these Epileptic spasms for eleven years. And when I began this treatment he was having as many as three fits a day. He had under-

gone much treatment, and various remedies had been tried, with only partial benefit. In his attacks, there was an entire suspension of consciousness, followed by stupor, with great lividity of the face. This case was treated very much as the last, i. e. large doses, and there was improvement from the first week. After taking the medicine for three months the peculiar eruption of the skin became so painful that I reduced the doses to one-half, but still continued with the same regularity. This patient had but five paroxysms during the first three months. Wonderful falling off from three a day! These were less violent and of shorter duration than formerly. After this he went back to the large doses and had no attack for six months. I had great hopes of this being permanent, but occasionally he experienced symptoms of an approaching paroxysm and by lying down immediately it would pass off without loss of consciousness. He is now taking the remedy in reduced doses and has had but three slight attacks in the last three months.

Sixth case: Man 30 years old; mechanic; had entirely given up work; had been subject to Epileptic fits for several years. Cause: masturbation. I began with large doses, ninety and thirty grains, respectively, of Br. Potas. and Br. Ammo., during the twenty-four hours. The attacks became lighter and less frequent from the first, and his strength generally improved. And after the second month there was no return of the disease, and has been none since, which is now nine months. Some few months ago I gradually began to reduce the quantity and am now giving him fifty grains of P. and twenty grains of A. per day. Whether this is to be permanent, or not, I am unable to say.

This ends my successful cases. The other four treated have not been materially benefitted. Two of them are traumatic cases, one insane and one idiotic. None of these took the remedy very long. I found so little benefit from it, or anything else, that I did not insist npon it.

[D]

REPORT OF CASES.

BY ALLMAN HOLMES, M. D., CLINTON, N. C.

CASE I.—OVARIOTOMY.

I visited a mulatto woman, who had about six weeks previous given birth to a child. Was the mother of six children. She was complaining of severe pain in the *pelvic region.* There was an anxious expression of countenance. apparently much alarmed as to her doubtful condition, Some clargement over region of the womb. After a careful examination, I discovered quite a hardened mass in the right illiac region, somewhat tender on pressure, and to better satisfy my mind as to diagnosis, made a *per vag.* examination, and finding no trouble except a slight prolapsus uteri, Simson's sound was passed into the womb without trouble. I was fully convinced of the character of her difficulty. Treatment, such as is usually relied upon, Iodine and its preparations internally and externally, Calomel, blisters, alteratives generally, tonics, etc., were faitfully used, with only for a short time a slight arrest of growth. I was of the opinion that surgical assistance was the only chance for recovery, and so informed her. She being at the time opposed to such a procedure, after such advice as I deemed proper, I left the matter for her consideration.

About four or five months after this interview she had fully consented, and urgently insisted that I should remove the tumor. By this delay the tumor had reached an enormous size, presenting the appearance of a woman at full term of utero gestation ; great emaciation and yet a vora-

cious appetite, with good digestion, great suffering, particularly in a recumbent position from mechanical pressure.

I was reluctant to operate from the large size of the tumor, its rapid growth, and fearing extensive adhesions. Several medical gentlemen had seen the case before this with me: but so determined was she for relief, after an examination and consultation with the physicians of Clinton, Drs. Micks and Bizzells, and warning her of the great danger and uncertainty of the undertaking, she still persistent as to the extirpation of the tumor, I acceded to her request.

The bladder and bowels being emptied *per vias naturales*, in the morning, at 10 o'clock, June, 1857, assisted by Drs. Henry and James A. Bizzell, William G. Micks and attendants, I proceeded to operate. She was placed upon a low bedstead suitably arranged, instruments, etc., conveniently placed; I timed the pulse and found it one hundred and twenty, precisely as it had been for nearly one month prior to this period. Chloroform was administered by inhalation to producing anæsthesia, by Dr. James A. Bizzell. I made an incision, beginning about *one inch* below the umbilicus over the linea alba to within *one and a half inches* of *pubic bone*. The muscles and integuments were so attenuated, and the tumors so dense and unyielding, that the gentle stroke of the knife in several places in the line of incision severed them, opening *two* or *three* apparently surface cysts, with a discharge of a light straw colored fluid. This cut only displayed a small part of the tumor, so tightly stretched were the divided parts over the dense unyielding mass. The incision was extended upwards until its entire length measured *fourteen inches*. I feared that a lateral incision would be required to effect its removal, and at this stage of procedure great doubt was expressed by some of the medical gentlemen as to its dislodgment. I carefully insinuated my hand, which was attended with considerable difficulty, between the abdominal covering and the tumor; at the same

time Dr. H. A. Bizzell passed one hand on the opposite side, and by firm and careful pressure in the direction of each other, the enormous mass slowly made its way through the incision. There was no adhesion to the anterior wall of the abdomen; that to the omentum was very great, requiring two ligatures of silk, which I have always found to answer a good purpose. Less extensive adhesions were carefully torn away with instrument and hand. The tumor was then cut from its right ovarian position, after ligating its pedicle, which was at least *three-fourths* of an inch in diameter, the ends of the ligatures secured and held by an assistant, and as considerable blood had escaped into the cavity of the abdomen it was quickly and tenderly sponged out with a soft sponge. Ligatures properly placed, the edges of the wound were brought together by silk sutures and adhesive straps. From first cut of knife to last piece of dressing, *twenty* minutes—recovered from the effect of chloroform in time to complain slightly of the last stitch. In a very short time after dressing the wound, was thoroughly aroused, quite conscious, and expressed thanks to Almighty God, and the kindest wishes for the medical gentlemen. The pulse then counted one hundred and twenty. An Anodyne Enema of Morph. Sulphas one gr. was administered. I deem it unnecessary to particularize the after treatment; suffice it to say, she was carefully and tenderly nursed. Anodynes, laxatives, stimulants, tonics, good attention to wound, were timely and properly regarded, diet carefully given. The ligatures came away in due time, except the lower one, which remained for some time, aiding, as I believed, in the discharge of considerable *pus.* Wound healed kindly, and in about eight weeks she could walk about, appeared well—except great emaciation. About five months after the operation she died; but from what cause I am unable to say; probably from pure debility, as although her appetite was *voracious,* the food was not properly assimi-

lated, and emaciation continued; but there was no complaint of the tumor or the effects of the operation. I will state that the woman had been from a child quite thin in flesh, and delicately constituted. The tumor is of a fibro cartilaginous character, and after its removal was weighed, having lost at least, from first to last, about four or five pounds; as *three-fourths* of an hour must have elapsed before it was weighed. Weight *twenty-four pounds.*

As this case has never been published, and thinking it would be a case of interest to our Society, as but few, if any, have been reported, I trust you will pardon me for calling attention to it at this late period. The tumor is preserved and in my possession, and I would gladly present it to our State Medical Museum, which, I trust, at no distant day, will be established for contributions throughout the State.

CASE II.—POLYPUS TUMOR OF AT LEAST TEN YEARS STANDING REMOVED BY LITIGATION.

Visited Mrs. ———, who had been treated by her medical attendant for years, as he informed me, for *prolapsus uteri.* Was told that her case was hopelessly incurable. Had suffered for eight or ten years from hemorrhage, never a day without more or less loss of blood. Sometimes so profuse and exhausting as to be seriously alarming. Had used pessaries, tampons, medicine internally and externally, but to no good effect. I was consulted by the lady who gave me a full history of her case, and its treatment. I will here state that there never was pain of an acute character, but always a bearing down, uncomfortable feeling. I concluded the case was one of polypus and gave her that strange but most natural account of polypus by Dr. Meigg, with the request that on the following day she should give me her opinion.

of the Dr. She exclaimed when I saw her, "*it is my case exactly.*" I proceeded to examine the case and found an enormous polypus hanging loosely within the vagina from its attachment within the womb. On the following day I proceeded to strangulate the tumor by arming a double canula with a silken cord, tightening as required every day, until the fourth day the ligature and tumor came away, leaving my patient comfortable, and in a short time entirely cured. Had passed before operation several years the time of change of life. Has never since the removal of the tumor been troubled with loss of blood. Now living in good health; about 70 years of age; operation performed September, 1860.

Tumor, fibrous character, about four and a half inches in length and three inches in diameter.

[E]

TREPHINING.

BY G. A. FOOTE, M. D., WARRENTON, N. C.

On the 25th last December was called to see Robert R. White, aged seven, healthy and robust, who had received a terrible wound from the kick of a horse. Apprehending trouble, and learning something of the nature of the case, (before leaving my office,) I invited Dr. Thos. E. Wilson, Jr., formerly of Warrenton, but now of New York, to accompany me. On examination we found an extensive compound, funnel-shaped fracture of the skull, flesh wound extending from left of median line in upper region of forehead to outer angle of *supra orbital* ridge.

Deeming the case hopeless, from the great destruction to

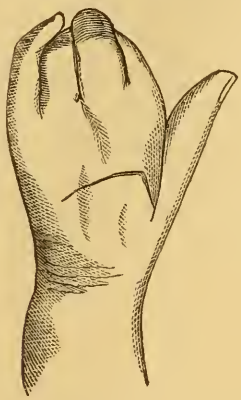
integument and cranium, complicated with strong, unmistakable symptoms of concussion and compression, we concluded to give the little sufferer the only chance for life within the range of our knowledge. Placing him under the influence of chloroform, we made a crucial incision, four inches, laid bare entirely the fractured surface, and with great caution and deliberation, proceeded to trephine, using a Tieman's *small* instrument applied to outer edge of fracture. There were ten considerable sized fragments of bone (dovetailed one upon the other) removed—exexposing the dura-mater, (to the extent of nearly two inches) to our great satisfaction, perfectly intact. All depressed portions of bone were elevated, osseous edges smoothed with a raspatory, blood and other extraneous matter removed, and the scalp wound united with suture over plaster, leaving an aperture at most dependent portion for drainage. The little fellow was carefully put to bed, head elevated, and with cold applications constantly applied, constituted the treatment for twenty-four hours. Becoming more restless, in fact totally unconscious, tossing constantly from one side to the other, we gave him *Sulph. Morph. grs. one fourth, Potas. Bromide grs thirty*, from which he slept profoundly twelve hours, awaking refreshed and perfectly rational, after which he never had an unpleasant or untoward symptom. He was placed on light *but nutritious* diet, kept in house five weeks, carefully watched To guard againt accident, he now wears a protection of leather and zinc, so nicely adjusted as to be neither painful or uncomfortable. There is a small opening from which there is a slight discharge this April 15th, having exfoliated six small fragments since operation. He is regarded as well, with but little deformity. While his condition, in the opinion of many, contra-indicated an opiate—it was doubtless the key-note to success in the case.

[F]

THE TREATMENT OF A WOUNDED HAND MADE BY THE SAWS OF A GIN.

BY J. W. JONES, M. D., TARBORO', N. C.

I beg leave to present to the Society ferrotypes of a hand taken four months after the accident. The two plates rep-



BACK VIEW.

PALMA VIEW.

resent two views of the hand, the back and palma sides. I saw the injured man about 11 o'clock at night, of the 7th day of October, 1875, the accident having occurred about sunset of that day.

Mr. L., our patient, was sitting in front of his cotton-gin, which was run by water power, removing motes that had collected under the saws of the gin. While thus engaged, his hand was caught, drawn in and cut, as you see by the scars, as represented by the ferrotypes. The fingers are badly represented. The artist was unable to give me views which would show the scars and position of the fingers at the same time.

You will perceive that there were five wounds made by

the saws. The transverse one was made by the breast of the gin. The saws entered on the palma side and cut entirely through the hand, a saw passing on either side of the hand, carrying away the superficial parts and slightly injuring the thumb. The others passing between the fingers and cutting the superficial parts of their inner sides and breaking the bones of two of them, the middle and ring-finger; then gathering more of the hand, cut through the interosseous spaces of all the meta-carpal bones. We do not know that the meta-carpal bones were injured. There had been considerable hemorrhage, but it had stopped when we arrived.

With this brief description of the accident and the injury, we now speak of what we did for the relief of the hand, and the result of the treatment. After a free consultation with Dr. Knight, the attending physician, it was agreed to give our patient a dose of morphia, and to dress the hand with as little disturbance to it as possible.

The forearm and hand were laid on a splint, and batting saturated with a mixture composed of

Tinct. Benzoin Comp.	- - -	½ oz.
Spts. Turpentine,	- - - -	¼ oz.
Tinct. Ferri. Chlo.,	- - -	¼ oz.

was laid over it, and around it, and pressed down, so as to be moulded to the hand. In about thirty minutes we put another layer of batting over that we had already applied, and then poured some of the same mixture on the dressing and pressed the cotton firmly to the hand and over the injury. When we poured the mixture on one side of the hand it run through the incisions to the other side. When the dressing had partially dried, we threw a light bandage around the arm, hand and splint. In about two or three hours the dressing was dry and hard, the hand without pain, all atmospheric air excluded from the wound, the hemorrhage stopped, and the hand supported and held as

firmly as by plaster of paris; and with a dressing on which cold water could be poured for some days without interfering with its integrity. The treatment from ihis time was under the entire control of Dr. Knight, the family physician. I did not see the case again in four months.

Dr. Knight informs me that he kept his patient quiet for about ten days. In fifteen days he was walking about the house and yard, and in twenty days he was on his farm and at his mill again. He had suffered but little after the hand was dressed. From the first to the fifth day he kept the hand cool with cold water. The fifth day he took away the dressing. There had been but little swelling of the parts; the laceration had united. After the first dressing was taken away, morning and night a mixture of olive oil and carbolic acid was poured over the hand, and then a cloth spread over with cosmoline was made to cover the injured parts. Our patient has partial use of his thumb, index and little finger, the other fingers are of no use. The hand is very useful.

My object in presenting this paper to the Society is to call the attention of the profession to the treatment instituted in this case. To me, and to all others who have used it, it is considered invaluable in the treatment of incised and lacerated wounds. I have used it in amputations, in injuries to scalp and face, and it makes an excellent dressing for compound comminuted fractures of the arm and leg. It is about the only dressing I have used in eight years for all such cases as I have named. The report of this case, I think, will show the merits of the treatment. The results in other cases were equally as good, and in some even better. No adhesive straps were needed, and only sutures, sufficient to hold the parts together until the dressing is dry. When the superficial parts have been carried away, we apply the dressing over the injury, it being a soothing application, after the first few minutes. The union of blood with the mix-

ture seems to make it more adhesive. It supports and holds the parts in position, arrests the hemorrhage, and excludes all atmospheric air, and is of such a nature that cold water may be applied over it for days without interfering with its integrity. The case we now report, the dressing remained five days. We never remove it until it is ready to drop off, or becomes soiled or in some way burdensome.

[G]

MANIA TRANSITORIA.

BY EUGENE GRISSOM, M. D., RALEIGH, N. C.

In the medical literature of the last forty years may be found numerous cases of the sudden appearance of mental disease, its rapid development and as speedy diminution, followed by almost immediate recovery, apparent or real. Such records are abundant in the writings of continental physicians, and not unknown in American reports. Their fidelity to truth has been assumed by the first English writers on psychology, and have furnished the basis of the most learned and exhaustive charges from the bench, in the application of such knowledge to the explanation of assumed criminal offences.

Such phrases as Instantaneous Insanity, Impulsive Insanity, Mania Sine Delirio, Insane Impulse, Folie Transitoire, and finally, Mania Transitoria, are familiar to readers of current medical works. It is an opprobrium of alienists that no system of classification of the disorders of the brain and nervous system, which result in abnormal mental exhibition, has been devised, to the full acceptance of the profession. Nor is this an easy task, when the multitudinous forces both within and without the bodily organism are considered. It may not be difficult to discern the least rip-

ple that breaks the calm of the great sea at rest, but it would require exquisite mechanics to predict the size and force of the storm-driven wave, even with the most perfect knowledge of the tides and currents below, the winds and heats above, and the shoals and rocks in its path.

It is not surprising that more or less confusion exists in regard to the phenomena attending what is now most frequently called mania transitoria.

In some cases it would appear to be a synonyme for a very limited attack of what is termed moral insanity, or a perversion of the feelings and will, which does not necessarily reach the intellect. Others have considered it an affection rooted in the disordered nerve centres of epilepsy, and replacing what we know as the *grand mal*, accompanied in its outbreak with or without some indications of *petit mal*. Again, it has been attributed to direct traumatic injury; where not referable to one or both of the above varieties of disease. Again, there are writers who maintain that moral insanity is a fiction, that the brain disease indicated by perverted affections and depraved will, is never without some discoverable effect upon the intellect, but yet affirm the existence of mania transitoria, as a definite idiopathic insanity, wherein all the reality of true mania is present, although for a very short period, which may or may not be recurrent, but which as truly renders healthy mental manifestation for the time being an impossibility, as many transient but severe functional disorders of various organs break up their normal relations for the time being; for example, the arrest of the action of the kidneys.

In opposition to the belief just enunciated, a very respectable and closely reasoning class of writers demand the proof of the hypothesis, by a detail of the symptoms of this extraordinary disease, and the character of the functional derangement. How may this rare affection be differentiated from ordinary madness on the one hand, and simple fury

or malice on the other, since it is only known by its outbreaks, and its passions once appeased, all is quiet again?

The response to this seems to be that pathology is at fault. It would be impossible to predict, even in the ordinarily acknowledged types of mental disorder, what an autopsy of the brain of the subject would reveal in any particular case. Science is doubtless working faithfully in this direction. The labors of Gray and Kempster in this country, and of Voisin, the present distinguished physician of the Salpetriere, will doubless enlighten these obscure researches; but the day is not yet. So far, say some, as chemical results go, nothing is more evident than that every insane man is a law to himself, with the exception perhaps of paresis, and one or two other specially marked disorders. Thus mania may pass into a melancholia, and *vice versa*, or both may occur in turn, as in the *folie circulaire* of the French.

It is to be regretted that the discussion of this question has been conducted with such acerbity upon both sides, as almost to require an effort to disconnect popular theories and strong medical predispositions from the mind, in order to give the facts a dispassionate examination. It is not unnatural, however, that tenacity and even bitterness of opinion should exist, if we remember the important medico-legal relations of this subject. Members of our profession are forced into the courts to declare their views, as experts, upon the sanity of men heretofore reported and believed to be as other men, yet who have committed some act that imperils their lives at the hand of justice. Often has it occurred that a large group of medical gentlemen have given entirely opposite opinions in these unfortunate cases. Few would be willing to rest under the imputation of having surrendered the sanctity of their oaths for mercy's pleading, and fewer still can be brought to acknowledge that they have condemned an irresponsible wretch to the grave. And so it has happened that on the one hand a red-handed murderer

has gone triumphantly from the dock to the plaudits of his partisans, and on the other hand justice and humanity have been shocked, to find, too late, in the autopsy of the condemned, the most absolute evidence of brain disease.

In view of its importance to the profession, I venture therefore to review some well known facts and positions relative to the existence or non-existence of transitory mania.

*Greisinger has various references to mania of limited duration. He says, "Mildner communicates an interesting case where an individual of limited intellectual capacity, with insufficiency and murmur at the aortic valves, in consequence of a violent shock fell into an attack of mania which lasted for only an hour and a half, and returned twice or thrice in the year. The very transitory maniacal attacks (mania transitoria of very short duration, occurring in the course of apparently perfect health) may be all the more readily compared with attacks of epilepsy, as sometimes even the latter end in mania. In a medico-legal point of view, it is, of course, quite the same, whether the state of mania during which the crime was committed was of long or of short duration. It is of great importance to know that undoubtedly such quite transient attacks actually occur."

†"The single paroxysms of mania last some times only a few hours." "Sometimes it appears as if the paroxysms of mania constituted a sort of resolution and compensation for the former state of mental pain, in the same way as we see in epilepsy and hysteria, many disagreeable and painful sensations which precede the attack, disappear with it." "Maniacs may recover suddenly, or this favorable result may be gradually arrived at after progressive diminution of the symptoms."

*Greisinger on Mental Diseases, trans by Robertson. 1867. p. 290.
†Ibid, p. 291.

He refuses, however, to disconnect the disease from the intellect proper, and place it in the category of the so-called moral insanity, but rather says: *"We recognize the fundamental fact that in no single case of mania is the conscious thought, the intelligence, perfectly free from any disorder. Even in the very slightest degrees of mania the intelligence participates in the general exaltation, though it be only to the extent of increased liveliness and rapidity of thought; generally, however, there is incoherence."

In the first volume of the Journal of Insanity, published thirty years ago, Dr. Sam'l Woodward, relates an † instance of a young man of apparent good health, of good appearance, habits and character, who was at times affected by an extraordinary desire to kill his best friends. No one suspected that a dreadful impulse was urging him to destroy his beloved relatives. This he confessed to his physician, who took remedial measures for his restoration.

Feuchtersleben in his work on Medical Psychology, translated and published by the Sydenham Society, says: ‡"A fit of mania may occur quite isolated, and it then represents an ephemera This ephemeral occurrence, which, however, is not confined to mania alone, but takes place, though more rarely, with every species of insanity, is confirmed by innumerable examples. Thus the celebrated Dr. Fothergill, otherwise a very sober-minded man, was all at once seized with the mania of walking naked through the streets of Edinburgh, and preaching repentance. A young man, in perfect health, awoke suddenly one night in a fit of raving madness, ill-treated his wife, attempted to leap out of the window, and struck at whatever came in his way. An emetic put an end to this scene in an hour; since which

*Griesinger on Mental Diseases, trans. by Robertson, 1867, p. 302.
†Journal of Insanity, vol. 1, p. 325.
‡Feuchtersleben, Medical Psychology, p. 299.

he has been in a perfect state of health, never having had a recurrence of the attack. Other examples of a similar nature might be adduced.*

"Transitory mania," says the same writer, "is for the most part cured by emeto-catharsis."

Dr. Earle reports the case of M. J., of Paris,† to whom he was called, May 7th, 1844. He found this ordinarily mild and amiable young man held down upon the bed, with difficulty, by four robust men. He recognized no one, the eyes rolled in their orbits, he saw before him the corpse of an imaginary being, and strove to drink its blood, and again, to disembowel one of his attendants.

The application of twenty leeches on either side of his neck was powerless to affect his transports of fury. Learning that he had written a long letter the night before to a young lady, and ascertaining her address, Dr. Earle prevailed upon her to lay aside her objections and go with him to the sick man's room, whom he had reason to believe to be tortured by jealously. Entering, she demanded, what means all this? An instantaneous change came over the patient, his pupils that had been widely dilated, contracted, a smile came upon his features, he burst into tears and was restored. Subsequently he could give no account of the false impressions under which he had labored. He went out as usual on the following morning, and there is no record of any after attack.

Dr. Maudsley, one of the editors of the Journal of Mental Science, and so distinguished as a Manager of Hamvell Asylum, England, says, "Cases of insanity are occasionally observed in which an attack of mania suddenly comes on, and soon passes away, so that although there is no epileptic fit, one can scarce avoid looking upon the attack as a sort of

*Comp. Vering's Psych. Heilk, ii. 2.
†Journal of Insanity, vol. I, p. 145.

epilepsy. Now this Mania Transitoria may take on the homicidal form."

It seems well settled that any sudden and great change of character, of the temper and disposition, following disease or injury of the head, although the intellect appears not to be disturbed, is an alarming symptom, and is often the precursor of intellectual derangement.

The case is frequently referred to, of a General in the French army, who suddenly left his duties at Boulogne, in command, and went to Paris with an imaginary treaty of peace. Napoleon alone discovered his insanity. But although he seemed sane enough, wrote comedies, and invented a valuable improvement in fire-arms, he finally died clearly insane. He had been much exposed to the sun prior to the attacks.

Dr. Bell reports a case as follows, which had been under his personal care: *A young man had showed symptoms of depression. One day his father asked him to go and make hay with him. While so engaged, his father stooping to pass through some bars, the son killed him with repeated blows of the pitchfork. Brought to the hospital within a week, he appeared calm, recognized his delusion, and never exhibited insanity again.

Dr. Woodward remarks: †"The subject of Homicidal Impulse, disconnected with other evidence of insanity, is so little understood, that it is hardly possible to convince mankind of its reality."

"For this reason the facts of such cases should be carefully recorded and attentively considered. It is always unpleasant to settle the question, under circumstances that fairly admit of doubt, to decide whether the law has been violated for wicked purposes, or by an individual laboring

*Jour. Ins., vol. 1, p. 265. †Ibid, p. 324.

under an impulse, which at the time, and under the circumstances, he could not control, especially when so much incredulity is felt of the existence of such an impulse by many intelligent members of society."

"That active impulses affect the minds of men under some circumstances, quite uncontrollable, disconnected entirely with any existing delusion, cannot be doubted. Those who look at insanity in the Institutions for the insane, and those who carefully study the records of experience of those who have written on mental diseases, cannot fail to recognize such cases. Of such, none is more frequently the subject of record than the homicidal impulse."

*Daniel relates the case of Mr. H——, whom he found one day in great agitation, flushed, with rapid pulse, hurried breathing and shining eyes, and learned that he had just passed through a great trial. In his own language—"I was lying on the sofa, and my wife and children were sitting by the fire; I had been talking to them very comfortably, when suddenly my eye caught the poker; a desire came upon me which I could not control; it was a desire to shed blood. I combatted with it as long as I could; I shut my eyes and tried to think of something else, but it was of no use; the more I tried the worse I became, until at last I could bear it no longer, and with a voice of thunder I ordered them all out of the room. Had they resisted—had they opposed me, I should have murdered them every one. I must have done it; no tongue can tell how I thirsted to do it. Heaven bless them, and for what reason? Great God! how grateful I feel that I am free from that crime!"

He had suffered from digestive derangement, the liver being torpid. As the digestive apparatus recovered its tone, nothing more was observed of the destructive impulses.

*Jour. Ins., vol. 3, p. 13.

In the Journal de Med. et Chir. Pratiq. 1833, is the oft-quoted case of a shoemaker of sober and industrious habits. He arose early one morning to go to work, but in a short time his wife was struck with his wild look and incoherent talk. Suddenly he seized a knife, and rushed upon her to kill her. She could barely escape, with her child. The physician who was called bled, and gave other remedies to the maniac. In the afternoon he was quiet. Some authorities represent that he slept, and on awaking had no remembrance of the events that had transpired.

*Rabello was tried for the murder of Beardsley, at New Preston, Conn, in 1835. Beardsley, who was a boy, and the son of the employer of Rabello, trod on the foot of the latter one evening. This threw him into a fury, and he killed the boy with an axe the next morning. In the testimony of Dr. Stone, he states that having pointed to the body, he asked Rabello if he did that. "Yes, he replied, and God will forgive me." Asked him why he did that. Because Beardsley had trod on his toes before, and at other times insulted him. Observed no alteration of mind. He answered questions rationally—discovered nothing in his countenance indicating insanity; he was much excited at first, appeared to be angry, but aftewards cooled down.

On this trial, Dr. Fuller, Supt. of the Retreat, at Hartford, affirmed: "It is well settled that one faculty of the mind may be deranged, while the rest are sound. It is no evidence of sanity that the mind is rational in regard to all facts except the one upon which it is insane. Monomaniacs have been guilty of the most desperate crimes. Should regard a man who was constantly excited by *imaginary insults*, as a dangerous man." Rabello was acquitted. He afterwards died of insanity, and a fuller history of his former life in Madeira shows that his affection was of a recurrent type.

*Jour. Ins., vol. 3, p'gs 42 and 46.

Dr. Jarvis,* in an article devoted to Mania Transitoria, quotes Castelnau's illustration from Hiem of Berlin, of a Councillor of State, who had always enjoyed good health. He awoke one night breathing stertorously. His wife endeavored to aid him He assailed her with the most violent fury, and endeavored to throw her out of the window. An emetic put an end to the paroxysm, and for fourteen years he had had no other attacks.

Castelnau says, referring to transitory mania, "I could show by facts, already so numerous, recorded in the works of physicians devoted to the study of insanity, and the observation of the insane, the existence of a mental malady which society has the greatest interest to know, in order to prevent consequences dangerous to the community and to the person affected." Again he says, "We could cite a great number of facts, but these are sufficient to show that the various kinds of insanity, as of all the diseases of the organism, can establish themselves in a manner either progressive or sudden, and have a progress slow or rapid, continued, intermittent or temporary. There exist these instantaneous changes in the mental faculties, that is, instantaneous insanity. These changes have their first and only manifestation in a single act of qualified crime." This essay was delivered in 1851.

Dr. Jarvis, to whom I am indebted for the above quotation, states that in 1858, M. le Dr. Devergie read before the Imperial Academy of France a paper confirming the opinions of Castelnau, except that he claims that in the case of instantaneous insanity, there must be probably hereditary taint or some degree of mental irregularity. This mode of alienation he says, "is without cause, near or remote, appreciable to the world, bursting out as suddenly as

*Journal Insanity, vol. 26.

a clap of thunder, and ceasing completely with a criminal act."

Nevertheless he says that "the antecedents of their families, hereditary taint, divers acts of social life, propensities and tastes perverted, tendencies to silence and abstraction, thoughts of suicide, for years existing in many; have been the forerunners of the sudden outburst of irresistible criminal mania."

*"There was a young man of nineteen, son of a merchant of Bordeaux, regular and exemplary in all his life, affectionate as a brother, a dutiful son, faithful to his employer, a broker. He was the heir of an immense fortune, but the child of insane parentage, with a deep aversion for his step-mother. A dinner party was given at his father's one day. At the time of dessert, Julius, the youth of whom we write, left the table and went to the hall to warm himself; the fire was not burning, he turned therefore to his chamber, and took his gun and straw hat to walk in the fields as he was accustomed to do. Then the thought of suicide, which had troubled him for a month, suddenly presented itself, and as suddenly changed to the thought of killing his step-mother. He threw down the gun, went to his brother's chamber, took two pistols, which had been loaded three months, leaving his own pistols that he had loaded the evening before. He went to the dining room, where his step-mother was sitting at the table with his father, and discharged one of the pistols into her temple." He was rational immediately afterward, and so far as is known, remained sane.

The case of Biscarrat for the murder of Faudrin, at Marseilles,† is interesting as exhibiting the repugnance of the accused to an acquittal on the ground of insanity. There

*Journal Insanity, vol. xxvi, p. 5.
†Jour. Ins., vol. iii, p. 107-119

was no apparent intellectal derangement. Faudrin bought a gold watch from Biscarrat, but some time after, he preferred to return it. B. assumes that F. means to poison him, and he secretly prepares a pistol, crying out "He must answer for all," shoots him. The Medico-Legal Commission reported that "There exists, and science leaves no doubt upon the point, that there is a form of mental derangement in which reason is seemingly preserved, although the mind of the deranged person is a prey to the exclusive thoughts which beset it, and impair its faculties." The means employed for the act prove nothing, it is the cause we must seek; the psychological and diseased agency which determined the commission of the act. * * *. The case was transferred to another court. In that court, the prisoner related the details of the murder, and admitted his intention to kill the man who had severely wronged him, as he thought. His intelligence appeared to be perfect, his mind tranquil, and his efforts were unremitting to repel the imputation of insanity. He was acquitted unanimously on the ground of insanity, and sent to an asylum at Avignon.

This case does not, it is true, present a type of Mania Transitoria, in strict conformity to the title, but it is characteristic of sudden outbreak, and little apparent intellectual variation.

The case of James Griffin for killing Erastus Coit, at Otselic, present the following facts: Griffin had been quiet, respectable and industrious, and without indication of mental disorder of any sort. Coit comes to live in his house and seduces his wife, who afterwards leaves him for Coit's house. Griffin goes to see her and is ordered out of the place by Coit. He then shoots himself, after passing out, but the wound is not mortal, and as Coit approaches and taunts him with being a fool, he turns with burning clothing and a bleeding wound and strikes the latter with a whiffletree on the head, killing him instantly. He seemed immo-

diately after to take no notice of what he had done, and made no inquiry. His eyes were fixed and glassy, and expression that of a dead man, but he replied to ordinary questions. The jury acquitted him.

In this case, Dr. Amariah Brigham, Supt. of the N. Y. Insane Asylum, testified: "I cannot regard it as exceedingly strange that an insane person should prosecute his business correctly for a while, and then have a sudden paroxysm of insane excitement, commit some rash act, and become calm, and act and converse rationally for a time; for I have seen a considerable number of such cases, though they may be deemed rare."

Dr. Buttolph* of the New Jersey Asylum, the home of the revered and beloved Miss Dix, views the instantaneous phenomena which form the subject of this paper, rather as developments of a concealed insane condition. "Masked insanity" says he, often exist for months and years, unsuspected by the friends of the parties, or other persons, until some sudden, though premeditated act of fraud, or suicide, or homicide, reveals the truth. I need not cite examples; the records of hospitals for the insane, and of courts of justice and injustice too, are filled with them, and it may be added, with shame to the jurisprudence of every country, that these persons are often made the victims of their misfortune, as diseased subjects in the dungeon, and on the scaffold.

Dr. Conolly,† the celebrated physician to the Middlesex Asylum, at Hanwell, has gathered a large number of instances of what has been denominated transitory mania. Thus he relates that while a friend of his was in Strasburg, a soldier there became the subject of sudden homicidal impulse. He sallied out, resolved to kill the first person

*Jour, Ins., vol. 6, p. 131.
†Jour. Ins., vol. 6, p. 297.

whom he met, whomsoever it might be. It happened that an artist, who had a house in the suburbs, was pruning his vines, and the soldier attacked him, and cut his throat.

"A lady, the wife of a gentleman of fortune. got up in the night, walked out of the house, and drowned herself in the pond. In the morning the gentleman awoke and found his wife missing. There had been no previous suspicion of melancholy, despondency, or insanity." "Innumerable cases might be added to these," is his strong language. Suppose, says Dr. Conolly, who may be fairly claimed as standard authority from his point of view, the lady last mentioned had murdered her husband in the night, if, after the act, she had become calm, (which is not an uncommon case) what jury or what judge would much regard medical testimony concerning the fact of such temporary madness?

This was said twenty-five years ago, and we shall see that judges have regarded such declarations since, in various cases, while others have as sternly refused so to do.

The case which follows is typical of a large class of reports that have been considered to represent mania transitoria.

*A tradesman of fifty years of age, remarkable for uprightness in his dealings, kindness and benevolence, became involved in pecuniary trouble. His temper changed, his nights were sleepless, and appearance haggard. Several customers inflicted losses upon him, nearly at the same time, one of whom absconded. He believed a certain creditor meant to ruin him, and in this state of mind, an execution was put into his house by the creditor alluded to. The unfortunate man tore his hair, cried, and was thrown into an agony of distress. For many nights afterwards he was known scarcely to sleep. At the end of this time he went

*Jour. Ins., vol. 6, p. 299.

out, armed with an old pair of pistols that he was not known to have touched for many years. Going to the office of his creditor, he fired one at him, wounding him severely in the face, and discharged the other at his own head, receiving only slight injury. But after a few days, this tradesman became perfectly tranquil, and remained so. He was in no degree desirous of the plea of insanity being advanced in his favor, when in prison, although he said he felt wholly at a loss to explain his even thinking of the pistols which he scarcely knew how to use; and that all that he had done was now unaccountable to him. He was acquitted, as of unsound mind, at the time of the offence.

Dr. Connolly says: *"No single test of insanity can be safely relied on. There may be delusion or no delusion; premeditation and plan, or neither; apparent motive or no apparent motive. Many insane people act from motives sufficiently apparent, and plan crimes with abundant premeditation. They often exercise these powers without intending any crime, but in furtherance of some vague object."

Dr. Connolly says: "It is the painful and difficult duty of others to view these questions solely as legislators and defenders of society. Medical men must steadily view them as physicians, physiologists, psychologists, and not be scared away from what they know to be true, nor from declaring it. * * * * * * The same courage which causes the physician to brave the dangers of pestilence, should support him in this duty, beneath the assault of pestilent tongues and pens. Not the voice of the people, calling for executions, nor the severities of the bench, frowning down psychological truth, should shake his purpose as an inquirer and a witness. His business is to declare the truth; society may deal with the truth as it pleases."

*Jour. Ins. vol. 6, p. 300.

In the trial of Oxford* for shooting at the Queen of England appear the following questions and replies:

"Are there instances on record of persons becoming suddenly insane, whose conduct had been previously only eccentric?"

Answer, "Certainly. * * * Such a form of insanity exists and is recognized."

"What form of insanity do you call it?"

"Lesion of the will—insanity connected with the development of the will. Committing a crime without any apparent motive is an indication of insanity."

Castelnau says: †"The first act of insanity may be a murder, followed by the disease in an intermittent or continued type. But when a criminal action is the sole indication of insanity, it constitutes the instantaneous or transitory insanity of authors (Henke, Marc, Cozanveilh, &c.)

Ballard,‡ the celebrated juris-consult, whose decisions have ever been regarded as leaning to severity rather than leniency of judgment, says: "There are others who lose reason instantly, owing to severe pain, sudden surprise, or parallel cause. The only difference is in duration, and he whose head has been turned for a few hours, is as completely insane during this ephemeral delirium, as another in whom it has continued for years."

Marc relates numerous cases that have been regarded as exhibiting this affection. The editor of the Journal of Practical Medicine and Surgery gives five cases. Hufeland's Journal reports four. Dr. Thore mentions a case. Drs. Bouchet and Morel insist that there is a disease produced by a sensibility that the judgment cannot direct, and manifest-

*Jour. Ins., vol. 7, p. 317.
†Jour. Ins., vol. 9, p. 2 to 11.
‡Jour. Ins., vol. 9, p. 3.

ed by disorderly and criminal acts. Dr. Lunier asserts the same, with instances.

The above are quoted by Dr. Jarvis.

Dr. Boys de Louy* confirms the same belief, with two cases. "Guilty," says he, such cases are in the eyes of the world, and the magistracy, but yet to the eye of medical observation, they are unable to guide their reason.

Belhomme admits that while insanity may develope instantaneously, and may occur independently, there is usually in such cases a hereditary predisposition.

Caseaux believed in instantaneous attacks, and gave a case of a student, tempted to suicide, from a passing trouble.

Collineau thought there was a kind of instantaneous insanity which was extremely transient.

†It might be inquired, how could a person become so suddenly insane, and then be so suddenly relieved from it. Did any physical lesion occur in such cases? Such questions are the most difficult to be solved.

Dr. Castlenau,‡ relates the well known case of the inhabitant of the Commune of Gard, who, returning from his labor met his wife and spoke pleasantly, "My merry one, is the soup ready?" She replied by a blow of the knife, which killed him, and she then strove to hide the body. No circumstance could explain the act, except her insanity. She escaped the officers of justice and tried to drown herself, but was taken from the water alive. She belonged to an insane family, and the medical judgment was, that she had acted under an impulse of instantaneous mania. She was sentenced to hard labor for ten years, although she was finally feeble minded.

Georget, after researches into the history of homicidal

*Jour. Ins., vol. 9, p. 77.
†Quoted in Jour. Ins. from Review Medical, Sept., 1851.
‡Jour. Ins., vol. 9, p. 8.

mania, affirmed that "A horrible act, a murder, an arson, committed without cause, without motives of interest, by an individual whose actions have been previously correct, must be the result of insanity." In this case the woman had no motive, interest or pretext, to murder her husband.

*A female in flourishing mercantile business, while dining at a restaurant with her husband and children, was detected in concealing under her dress some articles from the table. She could not deny it, or explain it. Her former life had been pure and upright. Her constitution was vigorous, but at the time of the theft, owing to trouble in her family, she had suffered from nervous affections, and complained often of her head. On being interrogated, she could remember little of the alleged circumstance. Seeing her condition in society above want, the ease with which she might have taken more valuable articles, and her physical condition, Dr. Boys de Louy pronounced it a case of momentary seizure of insanity, and the court discharged her.

Dr. Ray,† one of the first physicians for the insane in public estimation now living, relates the case of C. A., who killed his cousin V. A., Aug. 13th, 1855. These two young men, most amiable in disposition and of high moral character, had gone to the mines of California, where they had remained for years in close partnership. They had returned to their old homes in New England, and on the date above named V. had gone to his uncle's on a friendly call. At the cornerib he met C., and soon after he was seen walking away from it, and when a few rods distant fell, mortally wounded by a shot fired by C. from the window, from an old shotgun kept in the crib. The murderer passed by those who were raising the wounded man, and went into the house without noticing him. His only reply when

*Jour. Ins., vol. 9, p. 76.
†Jour. Ins., vol. 12, p. 205.

questioned as to why he shot V. was, that they "had had no difference." V. lived twelve hours, and said repeatedly that he knew of no reason for the act—nothing unpleasant had passed at the crib. It appeared that C. had been silent and abstracted, and refused to see his friends who called upon him; had complained of headache, and paced his room at night. He was stout, strongly built, with the appearance of high health, and answered all questions rationally, but slowly. He made no attempt to leave, and said the killing was accidental. His pulse was 100 to 110. The grand jury refused to indict him, and he was placed in charge of Dr. Ray, of Providence Asylum. There he retracted his former statement, and said the killing was not accidental, but was on account of some young lady, and of circumstances that he alleged had occurred seven or eight years before, which had induced him to kill his cousin. His deportment was entirely correct and manners gentlemanly. Yet Dr. Ray says he was certainly insane. He remarks: "It is well known that when an impulse of this kind has passed off, and the person has become conscious of the havoc he has committed, it sometimes happens that he is ashamed of, and frightened at the consequences of his conduct. We know too, that the patient sometimes finds his grievances among incidents that made no impression at the time, and had been almost forgotten by every one else. After the lapse of weeks or months, an innocent remark or look, or gesture is called up, and ingeniously tortured into a damning proof of hate or hostility." Had the case gone to trial, says Dr. Ray, the old difficulty, although really healed, would have been considered as forming a rational motive for the act. Difficulties like these are not uncommon in judicial investigation. It only shows how multiform is nature even in its wanderings, and how feeble are our conceptions of its infinite variety.

The Journal de Medicine* recounts the case of Piers, an Englishman, aged 44, for twenty-five years an irreproachable, kind and amiable citizen of St. Omer. He had sudden hallucinations of hearing. One day he thought that the proprietor of the house in which he lived, who was then in the yard conversing with a neighbor, was really talking of him and grossly insulting him. He afterwards repeated the words which he believed they used, but there was abundant evidence that this was a hallucination. He opened the window and politely asked his landlord in. The latter entered, when Piers demanded the grounds of the slanders he was uttering. While the unfortunate landlord was denying the charge, Piers seized a pistol and wounded him mortally. Before the police he boasted of the deed, and declared himself dishonored if he had done otherwise. At the trial his hallucinations of hearing were proven, but the court attached importance to the artifice used to entice the victim into the chamber. He declared that he did not fire immediately from the window because he was afraid of missing, and the jury could not believe that a man capable of such reasoning was a lunatic. On the contrary, artifice and dissimulation are characteristics of monomania, and it sometimes requires great skill to fathom the intentions of an insane person. He was sentenced to the galleys for twenty years.

At the Court of Assizes, at Aube,† May, 1855, was tried the wife of Baudry, a discharged soldier. She was of irreproachable character, and tenderly attached to her husband, as all the witnesses declared. Nevertheless, on the evening of the 3d of January, upon eating some prunes cooked the day before, he declared they were poisoned, and supposed it may have been from the metallic dish, to which she agreed. He suffered all night. Rising next morning, in the dark-

*Journ. Ins , vol. 12, p. 293.
‡Jour. Ins., vol. 12, p. 295.

ness, he accidentally touched his wife's dress, and found a paper of vitriol there. On asking if she intended to poisou him, her reply was, "I have had an idea of that kind. I am guilty; kill me." Before the court she said she could not tell how such an idea took possession of her, which she said occurred on the Thursday previous. It was learned that she was pregnant, was gloomy in disposition, and the child of a father reputed to be exceedingly cruel to animals. Her husband and neighbors attributed this action to the effect of pregnancy, and the jury acquitted her, evidently believing it an act of transitory insanity.

In reply to the statement that it is probable that no intellectual abberration appears in the history of many of these cases, only because they are imperfectly reported, Dr. Ray, at the Annual Meeting of the Superintendents of Asylums for the Insane, in 1863;* said:

"I see a great many persons who are to my mind insane, and who require custody and care, and often at a public establishment; but I may see in them no marks of intellectual impairment. They may be there, but I cannot see them. The gentlemen ask very justly for cases. If cases of this kind cannot be found in Esquirol, Pinel, Marc, Georget and Pritchard, I admit there are none. The authors themselves thought they were authentic. They could see no intellectual impairment. We assume to believe that there was, although they could not see it. We know more about their cases than they did themselves."

The case of Bernard Cangley† whose trial is reported in the Belfast Journal, March 4th, 1864, is regarded by Dr. Ray as "a paroxysm of transitory mania, suddenly beginning and as suddenly ending, after the briefest possible duration. Cangley had been an employee of Reilly, who

*Jour. Ins, vol. 20, p. 80.
†Jour. Ins., vol. 22, p 26.

was well-to-do, and while there had a hand bitten off by the bite of an ass. One evening (Jan. 22d, 1864,) a stranger entered Reilly's, and after many years of absence, he is seen to be Cangley, by his mutilated hand. They spend a pleasant evening, take tea together, and Cangley reads aloud from a newspaper. At bed time, Cangley goes up to a loft with a boy, James Molloy. After 1 o'clock in the night, Mrs. Reilly heard a heavy noise, and thinking it was the boy, cried out, "James, good boy, take care you don't fall," fearing he would fall down the ladder. To this Cangley answered, "It is not James, Mrs. Reilly, it is me." She called from her room to ask why he could not sleep, and he replied he saw flashes of fire. Mr. Reilly now spoke and said it must be the moonlight; he left the bed and went out crying immediately, "I am murdered." Mrs. Reilly running to the rescure, was stabbed twice in the abdomen, and cut on the arm. Defending herself with a hedge slasher, Cangley turned and immediately after gave himself up to the nearest police station, telling what he had done, and where he had thrown his clasp knife in a bag. Reilly died in a few minutes after he was cut. Cangley was convicted, and when asked what he had to say when sentence was pronounced, protested that he was "unconscious." No medical evidence was called, and the significance of the hallucination of vision was passed by, the judge being scandalized at the proposition that a man so quiet and clear in statement, could be insane. He was insane, says Dr. Ray, for "who ever heard of a man arising in the night for the purpose of robbing or murdering his host, and walking so heavily as to wake him up, and calmly speaking to him as he approached his door. If his purpose were to kill, he scarcely accomplishes it; if to rob, he leaves the house without making the first attempt. And the absurdity of the notion is heightened by the fact that after accomplishing his end, he

straightway goes to the police and tells them what he has done.

*"There can scarcely be a reasonable doubt," says Dr. Ray, "that Cangley committed the bloody act in a short and sudden paroxysm of mania, and under an impulse that he could neither understand nor restrain. Of course he was entitled to an acquittal, while society was equally entitled to such a disposition of his person as would have prevented any repetition of the murderous act." * * *. †"Medical men, says he, have been reproached for the facility with which they allow themselves to support the plea of insanity in defence of crime. We are willing to bear the reproach. If those are reprehensible views which one time in a hundred promote the acquittal of a guilty man, how shall we characterize a system which no less often, at least, procures the conviction of one really irresponsible for his acts? * * * Some things there are that cannot be rejected or ignored. One of the results of the more careful and extensive study of insanity in these latter days is the discovery of a mental condition in which the understanding and the will are completely dissevered, and the patient is borne on to the commission of some bloody deed by an irresistible impulse. These are not speculations or conjectures, but well-observed, well-authenticated facts; and not to recognize them as such in any attempt to fix the limits of legal responsibility, is no more a mark of wisdom than it would be to teach chemistry now as it was in the days of Priestley, or to try old women for witchcraft in the spirit and understanding of Sir Matthew Hale. Medical jurisprudence can be of any worth only so far as it faithfully represents the acknowledged truths of science. What greater disgrace, then, can attach to a court of justice than that of deciding a question of

*Jour. Ins., vol. 22, p. 33.
†Ibid, p. 34.

guilt or innocence upon principles which have been falsified by the progress of knowledge?

In the debate upon this case as presented by Dr. Ray, among the Superintendents of the Insane, it is proper to state that Dr. Choate and others denied that a case of insanity could be made out, and thought it dangerous to accept the theory that a person never known to be insane, should commit crime under sudden and uncontrollable impulses. Such testimony, he declared, would bring discredit upon the profession.

Dr. Fonerden* advanced the supposition that Cangley was insane, and from masturbation. He gave a case in his own practice, of a stranger who met two brothers riding along in a road, and entered into friendly conversation. Suddenly, without the slightest motive, he threw one of the brothers from his horse and would have killed him but for the interference of the other. On examination it was found that the assailant had never known his victim before, and that he had never been known to be insane before. After acquittal he was placed in a hospital under the charge of Dr. Fonerden, when he attempted to kill the Doctor with a chair, in the midst of a friendly talk. His bodily vice was at once perceived there.

In the course of the discussion of this important topic various cases were referred to, and among them the case related by Dr. Walker, of a woman who had been attended by Dr. Steadman, who, while helping her sister to wash the dishes, seized a hammer and administered a blow upon her child, which was prattling on the floor. Her sister looked around as the second blow came down. The child died. When taken to prison she attempted to commit suicide. Dr. Walker stated that she became perfectly rational, but her

*Jour. Ins., vol. 12, p. 28.

friends would not see her except in his presence, nor would her husband submit to have her returned home. Her explanation of the killing of her child was this: "I thought the wall opened, and I saw my child lying out in the cold, and crying for bread."

Dr. Hills, of West Virginia,* gave a case of temporary insanity, in the instance of a man under his care who had tried to kill another, without any apparent motive. He was then recovering, and described his feelings at the time of the assault as intensely excited in fear of an imaginary black dog, about to destroy him.

The trial of Mary Harris for the murder of Burroughs, a Treasury Clerk in Washington,† on Jan. 30th, 1865, as reported in the papers of July following, has a wide spread notoriety. Its history is briefly as follows: Miss Harris was a young and attractive girl of humble Irish parentage, who from childhood had attracted the attention of Burroughs, twice her age, and they were engaged to be married for years. He moved from Iowa to Washington, broke his promise, and married a lady of Chicago immediately after meeting Miss Harris there, and arranging the preliminaries of their marriage. By disguised letters, anonymous in character, he endeavored to beguile her twice to an assignation house in Chicago, in order to lay ground to blast her good name in the event of suit for breach of promise. She was in great distress, suffered from severe dysmenorrhea, attempted the life of the young sister of her friend, Miss Deolen, once was barely prevented from drowning herself, and exhibited many strange freaks. Finally she came to Washington, and shot Burroughs as he appeared in the Hall of the Treasury, having watched for him until he came from his office.

*Jour. Ins., vol 22, p. 41.
†Jour. Ins., vol. 22, p. 332.

Public attention was riveted upon this case, and while the public sympathy followed Miss Harris, the most opposite opinions have been expressed with regard to the justice of the verdict of not guilty, rendered in consequence of the defence of insanity. The strongest testimony in her behalf was given by Dr. C. H. Nichols, Superintendent of the Government Asylum for the Army and Navy, and President of the American Association of Superintendents of the Insane. He said, "her mind was so far affected as to cause her to have violent impulses, and to be unable to restrain them; and also to entertain either unfounded views and feelings, or to entertain those that had a foundation, with a morbid energy. Questioned as to whether she would have been able to give a rational answer, upon inquiry respecting her acts, he answered yes." Farther, he declared, "No amount of premeditation or preparation to commit a homicide, in my judgment, precludes the idea that that homicide was an insane act."

He testified absolutely that he believed the act proceeded from insane impulse.* Dr. F. Howard agreed in the same. When the prosecution requested a certain charge, the court so directed, but farther voluntarily instructed the jury to acquit, if they found that the prisoner "was impelled to the act by an insane impulse, produced either by diseased physical condition, or by moral causes operating on a diseased state of the system, stinging to madness, and for the time displacing reason from its seat." This was Judge Wylie, Supreme Court of the District of Columbia. Miss Harris was afterwards sent to an Asylum.

Dr. Jules Falret,† in specifying the divisions of insanity says: "Fourth, there are momentary paroxysms of insanity, without disorder of the intellect; during these the patients

*Jour. Ins., vol. 22, p. 253.
†Jour. Ins., vol. 23, p. 516

commit homicide, suicide, and other acts of extreme violence, while in their language they seem almost or altogether rational. This condition is frequently observed; for example, in the intellectual *petit mal* of epilepsy, and even sometimes in connection with the *grand mal.*

*The case of Geo. Winnemore, tried, condemned and executed for the murder of Dorcas Magilton, in Philadelphia, April 25th, 1867, is regarded by many physicians of eminence as a stain upon judicial annals. The husband of Dorcas Magilton returning home, found his wife dead, with her throat cut. The prisoner let him in, stated that he had himself just come in and found the unfortunate woman dead, and he went for a policeman himself. A razor like his was found in the privy, and two two dollar notes in his pocket, whereas the victim was known to have the same sort of notes the day before. It was shown that he was a quiet, inoffensive young man, that he was not pressed for money, and could have had it from his brother as he wanted it. That he was subject to attacks of utter unconsciousness, that sometimes he believed he could see the dead plainly, and sometimes suddenly imagined himself an Indian, and would talk the Indian language. On returning to his usual state, he knew nothing of what he had said. Twice he was known to have attempted suicide. When these spells of unconsciousness came on, his eyes were glassy and expression changed. Drs. Ray, Worthington and Jones examined him, and found him quiet, ingenious, cheerful, with some intellectual culture. On the subject of his death, he said he was ignorant of the deed, but willing to die, to serve the purposes of God. Life had no charms. He believed in God and future rewards and punishments, and being innocent, why should he have a clergyman? This was said with an

*Jour. Ins., vol. 24, p. 187.

unmistakable air of sincerity and good faith. These distinguished gentlemen appealed to Governor Geary for a respite, but in vain, and he died cheerfully, protesting his ignorance of the deed to the last. After his hasty execution came certificates from the army surgeon in the West where he had served, showing his epileptic state and paroxysmal affections.

Devergie* says that French courts have passed in thirty years from the extremity of incredulity to the full acceptance of transitory aberration of intellect. Esquirol gives the case of a gentlemanly man who made an assault upon a lawyer in the Palace of Justice, and was unconscious of it afterward. Tuke admits the suddenness of outbreak, the shortness of the paroxysm, and often the suddenness of the cessation. Esquirol relates cases of women of the most modest character, who pass at once to the insane condition, expose their persons, beat their husbands, or kill their children. Dr. Woodward gives seven cases of homicidal mania in his hospital, in no one of which had insanity ever been before suspected. Tuke† recounts 31 cases of homicidal insanity without marked disorder of the intellect.

Pinel repeatedly affirms that experience has shown that persons of extreme sensibility, may, by some sudden affection, be so intensely moved as to suspend or even destroy all moral powers.

The case of Deacon Saml. M. Andrews‡ who killed Cornelius Holmes, May 26th, 1868, has been widely read, and is likely to take rank among the typical reports of those who affirm the existence of mania transitoria. Andrews, through all his life, was reputed to be honest, industrious, faithful and concientious. He was amiable, gentle, calm, kind to

*Jour. Ins., vol. 27, p. 7.
†Jour. Ins., vol. 26, p. 17.
‡Jour. Ins., vol. 26, p. 385.

the sick, not excitable, and even timid. But Holmes was guilty of a base passion for sensual vice, and on the evening in question, as they were passing through a small thicket near the cemetery of Kingston, he suddenly threw Andrews on the ground, and being very powerful, prepared for an assault of the most atrocious character upon him. Andrews, pinned to the ground, reached out his hands and struck Holmes with the stones he could gather in his fingers. Then all consciousness left him, as he afterwards stated. Holmes' body was found with the skull battered to fine pieces, no less than twenty-seven stones having been used to effect the purpose. His watch, pocket book, &c., were undisturbed. Andrews came to himself swinging stones in his hands. He denied the deed at first, on account of a sick wife, but soon confessed the whole transaction. His parentage was insane, and he suffered from nervousness, headache and neuralgia. Some hallucinations of hearing appeared after imprisonment. The jury, by a strange conclusion, refused to find him guilty of murder, or to acknowledge his innocence of guilt by reason of insanity. He was convicted of manslaughter.

He exhibited no remorse or consciosness that he was in any way accountable for the deed, although all his life a man of tender sensibility, self-chastened and prayerful; generous to a fault. Says a writer: "The absence of motive, the want of plan and preparation, the unfitness of the time and place for concealment, the accidental and unfitting instruments, the excessive beating and mangling, the indications of ferocious cruelty, and these in connection with his honorable life, his pure and gentle character, and even the shuffling and attempt to mislead after the act, are all consistent with the theory of insanity."

The trial of Aratus F. Pierce* for shooting to death Wil-

*Jour. Ins., Jan. 1872.

liam Bullock, of Lockport, N. Y., March 11th, 1871, is yet more recent than any case quoted. Pierce had just reached home on a visit from his place of business in Chicago, and discovering an unnatural condition on the part of his sister, learned that she had been engaged to be married to Bullock, who had seduced her under the promise of marriage, and refused to perform it. He had an interview with Bullock in the house of his (Pierce's) father, when they came down town together, and at a street corner, asked him at parting, "What shall I tell my sister?" to which Bullock replied, "Go to hell," and Pierce instantly shot him. The defence was on the ground of mania transitoria. It was shown that Pierce had been always of high moral tone, great personal purity, so much, that in the army he had gained the *sobriquet* of "virgin of the battery," free from any quarrelsome or vindictive habits, and his love for Hattie his sister, was extraordinary. That it could not have been premeditated, as he had arranged the day before his own wedding day, three weeks ahead only; that the pistol was always worn in travelling, in a certain overcoat, which he had only put on as he left the house, at the request of his sister. His parentage was proven to be insane on both sides. The evening of the occurrence he is reported by physicians to have exhibited the incoherence of mental shock, and he declared he had no knowledge of the shooting.

The Judge in charging the jury said that the defence did not rest upon what was commonly called moral insanity, but "it proceeds from the idea that the defendant was so far deprived of sense and reason, as not only not to entertain, but to be incapable of entertaining, the criminal design required to constitue the offence charged in the indictment or any other offence." The medical testimony differed, Drs. Clarke and McCallum sustaining the defence, and quoted the following authorities:

Dr. Maudsley, in Journal Mental Science, vol. 9, p. 336.
Castelnau Med. Leg., 19, 438.
Ray's Med. Jur. Insanity, § 149, § 150, Ed. 1871.
Bucknill on Lunacy, 2-5, 134.
Taylor's Med. Jurisprudence, 63.
Dr. Jarvis, Jour. of Insanity, 26, p. 1, &c.

Dr. Clarke says, "We defined this state of mind, as an instantaneous obeyance of reason and judgment, during which, whether long or short, the individual would be actuated by mad and ungovernable impulses, its first manifestation usually a monstrous act, out of keeping with the previous character. It would be preceded by a severe mental strain, culminating in a sudden mental shock. It would probably be as transient as it was violent, and the transition would likely occur on the completion of the act of violence. The person so affected would either justify the act, or fail to remember it, but would never fly. It is the bewilderment of Ideler, or Paranœa of Weiss.

Dr. Clarke presents an interesting supposition.* He says, in connection with the discussion in the case of Pierce, that as there are cases of general paralysis without hypertrophy, yet apparently brought about by extreme varicosity of the capillaries, a kinking and twisting with dilatation, as if at some period there had been too great a rush of blood for the vessels to carry on, without distortion. So says he, may not this abnormal varicosity, in a greater or less degree, be the congenital condition of those who inherit the insane tendency?

The charge to the jury was favorable to Pierce, and he was acquitted on the ground of insanity, after one hour's deliberation of the jury. The importance of this case, in which the defence was made solely upon mania transitoria,

*Journal of Insanity, Jan. 1872, p. 405.

must excuse the length of the reference to it. Other instances might be cited of the prevalence of this plea, but perhaps we have not yet receded far enough from the excitements of the hour to examine their respective merits. I have, indeed, already pursued this branch of my subject to undue length perhaps. With the desire to present the whole case, numerous instances have been cited as claimed to support the views of those who believe in mania transitoria, even though in some features they presented a divergence from the strictly assumed type of disease.

It remains to note the grave and ably urged objections of many very learned and experienced physicians of the insane, who totally deny the existence of the affection herein recorded, and ascribe the unexplained phenomena to imperfect knowledge of what are cases of true chronic but partially concealed insanity, or of epilepsy, or hysteria, and occasionally impugn the accuracy, either of the diagnosis or the report. Filled with zeal lest vice and wickedness assume the cloak of affliction to deal their deadly blows upon society, these gentlemen seem none the less convinced and enthusiastic than their brethren of the opposite belief.

Dr. Sankey, the proprietor of a private Asylum in England, and Lecturer on Mental Diseases in University College, London,* says the true name for this disease is Recurrent Mania. He affirms, "The attack occurs in patients who have been at least once distinctly insane, the fresh outbreak of acute symptoms comes on without a premonitory melancholic stage, and it occurs not absolutely without warning to attentive observers, but to friends often totally unexpected. The patient is about his usual occupation, and apparently sane; he complains of slight indisposition, perhaps a malaise, an indiscribable discomfort of some kind,

*Sankey on Mental Diseases, p. 94.

or slight headache, and then breaks out into some insane act. This act is often one of violence to himself or others, or some act of destruction to property. The outbreak subsides gradually, sometimes in a few days. The patients often deny having been insane, and declare if left alone, there would have been nothing the matter with them.

What I give you, says he, is the result of my own examination of this question,* which is not without difficulties. These cases run over many years, so that one person cannot speedily trace many of them himself. In the published accounts, the first symptoms are sometimes omitted, in others the termination is unknown; in many cases only an attack is described, because of only one criminal inquiry.

He refers to the case described by Bucknill and Tuke, in 1858, of the French lad who killed his step-mother in 1854, (referred to in this paper), and shows that his later history indicates that it was ordinary recurrent mania, for the youth actually killed himself on the tomb of his victim in February, 1859, and in his pocket book were found the words, "I am about to die close to her whom I so fondly loved and so greatly deplored."

Says Sankey, "I have never met with the absence of a premonitory melancholic stage in a primary attack of mania, but its absence in secondary attacks is by no means unusual."

In my opinion,† these accounts (of violent acts done by lunatics, cited as examples of emotional insanity,) are of no value in establishing the existence of such disease as a distinct morbid species, as really, all they show, is that a certain number of persons committed acts of great violence, who were never supposed to have been insane previously: and that the acts themselves all appeared to be without mo-

*Sankey on Mental Diseases, p. 95. †Ibid, p. 97.

tive. It would be more interesting to know who made the diagnosis that these persons were not previously insane." "I have never yet discovered a case in which an act of violence was committed by a lunatic as his first insane act." Thus in the case quoted as typical of a young man who rose in the night and stabbed his school-fellow, it was found that he had severe cerebral disorder in childhood, and had been of weak mind ever afterward.

There was an interesting debate on this subject at the Madison (Wis.) meeting of American Superintendents of the Insane, reported in the Journal of Insanity in Oct., 1872.* It was provoked by a declaration of Dr. Curwen in a paper upon insanity, its diagnosis and treatment, that transitory mania was too well established to admit of denial or question. Dr. Curwen is Supt. of the Pennsylvania Asylum at Harrisburg, and permanent Secretary of the Association. This position was denied by Dr. Gray, the accomplished head of the important State Insane Asylum of New York, at Utica. He acknowledged that the older writers favored the doctrine of mania transitoria, but their cases had been repeated by writers, without corroborating evidence of the present day. We could not find such cases, in our practice, with the present state of knowledge. He admitted that Marc had given two or three hundred pages to the subject, but he had recounted numerous cases of epilepsy and epileptic mania. Dr. Gray admitted that mania often replaced the epileptic paroxysm so to speak, but he denied that the epileptic was ever really sane altogether, i. e., that the attacks could be justly termed transitory mania. He acknowledged, however, that the clearest and most distinct account of the alleged disease is given by a recent writer in 1870, Professor Kraft Ebing of Strasburg, who describes five cases

*Jour. Ins., Oct., 1872.

under his own observation. Ebing terms a form of mania characterized by sudden appearance, violent manifestation, mental and muscular, entire loss of appreciation of what is going on and of time, and utter loss of memory concerning what occurred during the paroxysm. Its shortest duration was twenty minutes, and the physical condition accompanying it was that of temporary congestion, with reddened face, injected eyes, heat of head, and a quick, feeble, or full bounding pulse.

Dr. Gray contends if such description is left out of cases, they are not reported with scientific accuracy, and their statement amounts to a mere lawyer's plea.* He refers to the cases where persons have deliberately gone with instruments prepared for shooting their fellow-men for a real or fancied insult; where immediately before and after the act the person was sane and conscious, and the appeal to the court was, that the wrong committed had engendered insanity, which was formed into transitory mania, on getting into the presence of the wrong-doer. We have had three or four such in New York of late years, says he. They are cool and indifferent after the deed, and show no remorse. They appeal to medical jurisprudence to justify them, and they are acquitted. He referred to the case of a woman who had armed herself with a pistol, watched for her victim to enter a street car, went in and spoke to him, and receiving an answer which she said was insulting, shot him dead. Yet a medical man testified that she was rendered instantaneously insane by the man's reply, and reason was overthrown at one blow, for the moment. She saw the smoke, saw the wound in his face, saw the pistol and picked it up, adjusted it and fixed it back in its place. The shooting relieved the mind, and she was at once well. Such testi-

*Jour. Ins., Oct. 1872, p. 144

mony, says Dr. Gray, is the result of the acceptance of theories without facts, detailing symptoms fixed and definite.

Dr. Callender, of Tennessee,* agreed with Dr. Gray, and related how the courts had set aside his testimony, and released a man who had killed the seducer of his wife while he was absent in the army. Yet they had met frequently for four years, until one morning he killed him as the seducer passed his place of work, and it was contended that this was the result of insane impulse. Dr. Callender contended that if this type of insanity "has the suddenly reddened face, the heated head, the quick bounding pulse that is asserted, let them adduce a sufficiency of well-authenticated observations to establish it, before we substantially admit that the poet's line 'anger is a short madness,' means madness involving legal responsibility."

Dr. Stevens sustained Dr. Curwen in opposition to the views of Dr. Gray.† He referred to the case of Fore, who killed Munsen H. Beach. He said no intellectual impairment could be discerned, but lies where history showed that his desperate attacks upon the lives of others proceeded from transitory mania; his family were deeply affected by mental disease. Dr. Stevens declared that he had been bitterly assailed by the pulpit, for the evidence given by him upon which Fore was acquitted.

The debate continuing, Dr. Hughes, of St. Louis, formerly Supt. of the Missouri Asylum, at Fulton,‡ said: "I believe in transitory mania. I do not believe in mania transitoria characterized by premeditation and resulting from a motive, but I do believe in the possibility and probability of real transitory mania, or the mania of sudden and overwhelming impulse, as thoroughly as I believe in epilepsy or sudden cerebral congestion, which may suddenly kill or

*Jour. Ins., Oct., 1872, p. 154. †Ibid, p. 149. ‡Ibid, p. 157.

lead to acts of sudden insanity. I believe in disease as the immediate cause of insanity. I believe in the sudden recurrence of disease. We have diseases of the heart and other physical organs which instantaneously take away life or indirectly disturb the functions of the brain. Why not a sudden cerebral disease—concussion, congestion, or withdrawal of blood—sufficient to cause transitory and immediate insanity. We do have these cerebral states, and the resulting insanity is sometimes permanent. I should hesitate long before pronouncing an absolutely motiveless act of homicide, a case of sane rather than insane impulse. I believe, as Maudsley says, that there may be certain disturbances of the cerebral molecules, by internal or external causes, as will result in the immediate outburst of insanity, but I should be wary in coming to such a conclusion. I believe in a form of insanity in which the intellectual functions are wholly in abeyance, and apparently unimpaired. Dr. John Ordronaux, Prof. of Med. Jurisprudence in the Law School of Columbia College, and now Commissioner of Lunacy for the State of New York, under the recent laws of that commonwealth,* contributes a valuable paper to the literature of this subject in the Journal of Insanity, (Jan., 1873.)

He says an untimely dialectics, born of materialism, would convert equitable into sentimental jurisprudence. That no scientific physician can deduce an existing disease from a moral state of a patient, that he must find material symptoms, or he has nothing upon which to rest his diagnosis. Dare any pathologist affirm that because a man's mind is worried, he must therefore owe it to dyspepsia. Yet courts are asked to instruct and have so charged that a man who has committed crime must be considered irresponsible

*Jour. Ins., Jan. 1873.

because of its enormity, and its incomprehensible motivelessness." *"Those virtuous moral lunatics, Sickles, Cole and McFarland, seem to have had just enough moral perception left them to discern that they had been cruelly wronged, but not enough moral discernment to perceive that they wronged their victims in slaying them. In the admitted enjoyment of perfect mental sanity they deliberated upon their wrongs precisely as do men who desire to revenge themselves. Instead of being impassive and indifferent to wrong as any consistent moral lunatic should be, they "nursed their wrath to keep it warm," conned over day by day the great tragedy by which they were to raise themselves to the bad eminence of murderers, and when they had screwed their courage up to the executive point, all shot their victims in so cowardly a way as to show that they did not intend to expose themselves to any risk. Human nature has not changed its constituents since the day of its creation, and it is idle to assume that modern progress will dissever the moral and intellectual natures.

†"A natural corollary and legitimate offspring of moral mania is that form of impulsive insanity, recently designated as mania transitoria. If the former, disparting in a physical way our mental constitution into two separable entities, may be considered illogical, and therefore a contradictory conclusion to the premises on which rest all civil and religious accountability, the latter must be admitted to be a conclusion with a premise, an edifice standing upon air, and a species of psychological soap-bubble which bursts, not only when philosophically handled, but by its own expansion.

Ordinarily, diseases show some relations to past or present physical states, and leave behind some evidence of their

*Jour. Ins., Jan. 1873, p. 324. †Ibid, p. 331.

occurrence. They have *prodromata* and *sequelæ.* But nature changes all her laws in the case of mania transitoria. We are asked to call it disease and yet not permitted to apply the tests of disease. If we ask to what class it belongs, we are told to none. It is not a mental observation, because there is no incoherence, no delirium. Its end and aim being homicidal, it goes straight to its purpose and stops. It is not an ordinary and vulgar nervous malady, for that has stages, and this none. It is not an inflammation of the brain or cord, because this has definite symptoms, impressing themselves upon the pulse, muscular co-ordination, &c. If we ask how long it lasts, we are told sometimes but a minute, long enough to fire a pistol, or give a stab, for if it continued an hour or a day after, it would not be mania transitoria, but rather that common kind which finds its way properly into Asylums. Wherein it follows that in order to be recognized, it must be seen only by those who are specially endowed with the faculty of introspecting the minds of others divinely. Truly such a power of reading the human interior as that, is, to say the least, *quasi*-divine. Other manias deport themselves through various phases of mental aberration, or physical misconduct, but in all the American cases, constituting causes celebres in our criminal jurisprudence, such as those of Sickles, McFarland, Cole, Andrews and Pierce, the crime was not simply homicidal, but with all such aggravating circumstances as showed revenge for injuries to the feelings, coupled with protracted determination to redress those wrongs. Each revolved the incidents of the drama deliberately, and executed it when the most convenient time to him, and the most defenceless to his victim, had arrived. In what single element does this differ from premeditation. No recognizable symptoms of insanity were exhibited before or after the commission of their crimes. In order to explain their mental condition, we are told that a certain parenthetic phase of insani-

ty suddenly sandwitched itself between the otherwise sane operations of their minds, and they became instantaneous lunatics.

The promulgators of these theories are on a dilemma, the other horn of which is demoniacal possession. What is left them but this. These flash-of-lightning forms of insanity, heralded by no symptoms, rushing meteorically into one's mental atmosphere, and exploding violently, yet leaving no wreck even of its subject behind ; being all-in-all to itself, self-created, self existent, self-curing, self-limited, and above all physical laws, has it any analogue among finite things on the earth, in the air, or in the waters under the earth ? Can it be made the object of legal evidence?" Dr. Ordronaux contends at length that Drs. Jarvis and Ray, who have written on this subject, give no case as occurring in their own large practice, and that numerous other physicians of the insane, in charge of many thousand patients during their lives, had never seen a case which they would describe as mania transitoria. He freely acknowledged that an epileptic was irresponsible for what occurred during his convulsions, which might assume the form of mania, but the whole occurrence would be a blank in his memory, and he could not remember the incidents of the act of violence, as seen in the cases referred to. "It is a pleasant thing indeed in this world of suffering, that a patient can cure himself, simply by gratfying his wishes *ad libitum.* But it is a different thing when that gratification involves destroying a human being, and constituting one's self the judge and avenger of one's own personal injuries, and society owes it to itself by this general assault upon its prerogative, to hunt the avenger down as an outlaw."

There is no possibility that a disease belonging to a finite body can constitute itself into a miracle, being in all its manifestations contrary to the laws of nature. Hypothesis is only the anti-chamber to argument, and the law cannot

rest upon it in determining human responsibility. *We object to mania transitoria because it is a hypothesis and nothing more, and an assumption not sustained by facts. It borrows the name of a disease, but refuses to bear the features of one. It asserts itself superior to logical demonstration. It starts with an assumption, ends in an assumption, and is only an inference throughout from an unsupported hypothesis. Its tendency being to emancipate crime from penal obligation, it is against divine and human justice, and the sovereignty of man's moral nature. Lastly, it is an attempt to set back the clock of the century, and revert to superstition and supernaturalism in medicine."

This long quotation presents with distinctness the firm opposition of one school of thought to the admission of this affection, but as we have seen, its advocates are equally tenacious.

Dr. Maudsley says: †"A character which the insane neurosis has in common with the epileptic neurosis is, that it is apt to burst out in a convulsive explosion of violence; that when it develops into actual insanity, it displays itself in deeds rather than words—in an insanity of action rather than thought. It is truly a *neurosis spasmodica.* Again he declares, ‡"There is a distressing form of disease in which a desperate impulse to commit suicide or homicide overpowers and takes prisoner the reason. This terrible impulse is deplored sometimes by him who suffers from it, as deeply as by any one who witnesses it; his reason is no farther affected than in having lost power to control, or having become the slave of, morbid and convulsive impulse. It may be that this form of derangement does sometimes occur when there is no hereditary predisposition to insanity.

*Jour. Ins., Jan 1873, p. 337.
†Maudsley, Body and Mind, p. 71. ‡Ibid, p. 73.

It is sometimes preceded by a strange morbid sensation, like the *aura epileptica.*"

Again he says: "In children, as in adults, a brief attack of viduct mania, a genuine *mania transitoria*, may precede or follow, or take the place of an epileptic in the latter case, being a masked epilepsy."

Hammond says: *"What is called temporary insanity, mania ephemera, or impulsive insanity, generally depends upon cerebral congestion. In this connection, see 'A Medico-Legal study of the case of Dan'l McFarland in Journal of Psychological Medicine, (July, 1870).'"

In the Journal of Insanity, April and July, 1873, may be found thoughtful articles touching the relationship of epilepsy to insanity. After discussing the entire topic with thoroughness, Dr. Echeverria speaks of Mania Transitoria, and declares that he fastens its instantaneous evil acts "to some unsuspected form of epilepsy, when, by tracing back the history of the individual, we discover indications of the epileptic disease in its hidden varieties, such as nocturnal fits or simple vertigo, under which category he declares he has seen some very perplexing cases."

In debate in reference to the paper above quoted, Dr. Echeverria said: †"I admit instantaneous impulsive acts in relation to the varieties of insanity, and Dr. Ray will agree with me, that such sudden impulsive acts are generally described as instances of instantaneous mania. They may occur throughout a state of transitoria mania, that is almost always related to epilepsy, or during a fit of vertigo, or in individuals tainted with hereditary diathesis."

It may not be without interest to state some of the recent decisions of the court upon this subject, since the profession is clearly affected by its medico-legal relations.

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*Hammond's Diseases of the Nervous System, p. 40.
†Jour. Ins., Oct., 1873, p. 208.

Judge Robertson,* of the Supreme Court of Kentucky, on the appeal of Rupert Smith, convicted of the murder of Erederick Laundaur, said:

"It is the intellectual and moral nature alone that makes one, in the probationary sense, a man, and holds him responsible for his voluntary conduct. And it would be as useless and cruel to hold him accountable, either criminally or morally, for an act done without a free, rational and concurrent will, as it would be if his reason had been in total eclipse. The common law progresses with all other sciences with which it is affiliated, as a growing and consistent whole. And consequently, as the science of man's moral nature was developed, the phenomena of insane affections, emotions and passions, which either neutralize or subjugate the will, medical jurisprudence recognized as moral insanity, and pronounced this morbid and overwhelming influence as exculpatory as the other form called intellectual insanity. No enlightened jurist now doubts the existence of such a type of moral, contra-distinguished from intellectual insanity, as homicidal mania, or morbid and uncontrollable appetite for man-killing, and pyromania or the like passion for house-burning, and kleptomania, or an irresistible inclination to steal."

The following important decision of the Supreme Court of the United States,† in which all the Justices agreed except one, (Justice Strong,) is of very recent date, and interesting as conveying incidentally the views of the highest court in the land, upon some phases of the question under discussion. The opinion was delivered by Justice Hunt, in the Mutual Life Insurance Company, plaintiffs in error, vs. Mary Terry. It was a case of resistance by the Insurance Company to the payment of a policy of two thousand dol-

*Jour. Ins., vol. 23, p. 5.
†Journal of Insanity, Oct. 1873, p. 259, &c.

lars on the life of George Terry, because said Terry died from poison taken by himself. There was conflicting evidence in regard to his insanity. The Court says: "If he was impelled to the act by an insane impulse which the reason that was left him did not enable him to resist, or if his reasoning powers were so far overthrown by his mental condition that he could not exercise his reasoning faculties on the act he was about to do, the Company is liable." On the other hand, there is no presumption of law, *prima facie* or otherwise, that self-destruction arises from insanity.

There was a claim of the counsel that if the deceased had sufficient mental capacity to understannd the nature and consequences of his act, that is, that he was about to take poison, and that his death would be the result, he must be responsible for his conduct, and the defendant is not liable for the money, and the fact that his sense of moral responsibility was impaired by insanity, does not affect the case.

But the decision of the Court proceeds upon the theory that a higher degree of mental and moral power must exist; that although the deceased had the capacity to know that he was about to take poison, and that his death would be the result, yet if his reasoning powers were so far gone that he could not exercise them on the act he was about to commit, its nature and effect, *or if he was impelled by an insane impulse which his impaired capacity did not enable him to resist, he was not responsible for his conduct,* and the defendant is liable.

In Easterbrook vs. Union Insurance Company, 54 Maine 224, the Judge at the trial instructed the jury "that if the insured was governed by irresistible or blind impulse in committing the act of suicide, the plaintiff would be entitled to recover. This decision was sustained by the Supreme Court of Maine.

In the case of Gay vs. Union Mutual Life Insurance Company, cited 2 Bigelow, Sup. p. 280, it was held "if the insur-

ed destroyed himself while acting under an insane delusion, which overpowered his understanding and will, *or if he was impelled to the act by an uncontrollable impulse,* the case does not fall within the provise of the policy."

Says Judge Hunt, *"When we speak of the mental condition of a person, we refer to his senses, his perception, his consciousness, his ideas. If his mental condition is perfect, his will, his memory, and his understanding are perfect, and connected with a healthy bodily organization. *If these do not concur*, his mental condition is diseased or defective. †That form of insanity called impulsive insanity, by which the person is irresistibly impelled to the commission of an act, is recognized by writers on this subject. It is sometimes accompanied by delusions, and sometimes exists without them. The insanity may be patent or concealed. The impulses of persons of unsound mind are manifested in every form. These cases are to be carefully distinguished from those where persons in possession of their reasoning faculties are impelled, by passion merely, in the same direction. The judgment was affirmed in favor of Mary Terry."

It will be seen, therefore, that the doctrines of Impulsive and Transitory Insanity have found acceptance in the highest courts of the land, yet many decisions may be found which totally reject them as unscientific and untrue. In weighing the conflicting testimony and opinions on this contested question, while some cases appear to be manifestly the mere offspring of crime, and others are as plainly instances of ordinary insanity in recurrent outbreaks, there exists a number of cases which need explanation. Somewhere there is a border line between crime and misfortune here, and it has been happily said by some one that it must lie along the edge of bodily disorganization. The epileptic neurosis is freely admitted by the opponents of mania tran-

*Journal of Insanity, Oct. 1873, p. 267. †Ibid, p. 268.

sitoria to exhibit itself by mania as well as by true convulsion. Who will explain larvated epilepsy, or the maniacal form which replaces it? How often are its slighter attacks unsuspected, undreamed of, both by its victims and their friends! Van der Kolk, Ramberg, and a host of writers tell us that it may duly demonstrate itself by a slight tremble of the eyelids or stammer of the tongue, a faint twitch of the facial muscles, a trifling vertigo, a mere momentary unconsciousness, unnoticed by the patient himself. Or its attacks may continue for years, only by night,—the incontinence of urine is not suspected as a consequence, the spasm is regarded as nightmare, the spot of blood on the pillow is thought to be ordinary bleeding from the gums or mouth, the minute spots upon the forehead pass unnoticed. It has even existed for years and eluded professional search in hospitals.

The late esteemed Dr. J. W. Wilkie, Supt. of the Asylum at Auburn, N. Y., for Insane Criminals, who has been within a few weeks committed to an honored grave,* stated in confirmation of the fact that the real epilectic state may exist, unsuspected by the criminal or any of his friends, or even the insane condition thereby induced.

"A young man was received into this Asylum Aug. 27, 1872, from one of the State prisons, who had been convicted thirteen days before, of an assault to kill. When arraigned, he put in a plea of self-defence. No inquiry was made as to his mental condition, nor had any derangement of his mental faculties been suspected by his most intimate associates. He labored under the delusion that he was assaulted and abused by his fellow patients and the attendants in the Asylum. Application for his pardon was made, which I opposed, on the ground that he was a dangerous lunatic.

*Jour. Ins., Jan., 1874, p. 372.

His brother, who made the application, a gentleman of high respectability, informed me that no mental disease had ever been suspected before his imprisonment. He gave evidence of larvated epilepsy, and finally became rapidly demented, dying Aug. 15, 1873, with convulsions, and *in status epilepticus.*"

There is another remarkable case, which has been reported in the Journal of Insanity for April, 1876.* Jacob Standerman was condemned to be hanged on the 10th December last, for the murder of Miss Siedenevalt, in New York, April 19th, 1875. He had paid her many attentions, and been subject to much teazing on the subject. On the evening in question, Miss Siedenevalt stepped out of a Fourth Avenue car, with a young lady and gentleman. He was standing on a corner and approached to speak to her, when she turned away with a gesture of contempt, and he shot her instantly. The defence amounted to little, and he was promptly sentenced to death. His conduct in prison exciting surprise, the Governor ordered a Commission to examine him, consisting of Prof. Ordronaux and Dr. Wood. His brother having been discovered in Connecticut, it was found that his family history showed that he and his mother were epileptics, which had not been suspected before, but soon became plain on careful examination, and Gov. Tilden commuted his punishment to imprisonment for life, it being plain that he was a dangerous epileptic, and as he degenerates by disease, the Asylum for criminals is open to him. Epilepsy in his case exhibits itself in nocturnal attacks, and is not spinal, but cerebral.

To close this already lengthy paper, which is only excused by the great importance of the subject to the medical profession, to the friends of those arraigned for crime, under

*Jour. Ins., April, 1876, p. 451, &c.

doubtful circumstances, and to the interests of truth and humanity, no less than justice, I invite my professional brethren, in the event of investigating a case of supposed Impulsive Insanity:

To examine thoroughly the history of the family of the accused, for nervous disease of any character, and especially the insane neurosis.

To search the past life of the individual himself, for any indications of chronic but concealed insanity.

Especially, to ascertain if there is not evidence of larvated epilepsy, by a rigid symptomatic test.

And farther, to investigate the possible occurrence of any traumatic injury capable of giving rise to cerebral irritation of obscure character, and likewise to examine narrowly his record as regards physical views of every character.

With these reflections, the subject is left with you. I draw no lines of demarcation. Dr. Forbes Winslow has happily said, "Who can safely draw the line between night and morning, between light and darkness? or say at what precise moment health fades into disease? Who can mark precisely the frontiers, the almost imperceptible limits that separate insanity from sanity? Who can number the degrees by which reason declines and falls into annihilation? This would be to prescribe limits to that which is illimitable, to give rules to folly, to be bewildered with order, to be lost with wisdom."

As medical men, we need not be over anxious to assure a court what form or particular type of insanity may affect a person on trial; it concerns us most to know that he is insane at all. Let us be weary in satisfying ourselves of the truth—once satisfied of the justice of our conclusion, let us be firm. With results we have nothing to do.

[H]

ANNUAL ADDRESS.

BY WILLIS ALSTON, M. D., LITTLETON, N. C.

THE PHILOSOPHY OF FOOD.

Mr. President and Gentlemen of the Society:

I must thank you, first, for the honor you have conferred upon me, and when I see here to-night so many to whom this honor is more justly due, I must thank you again.

I must digress from the general custom of selecting subjects of a non-medical character for the Annual Address, and therefore have chosen for mine, "The Philosophy of Food."

Prof. Dalton, in his human Physiology, says, "under the term food are included all those substances, solid and liquid. which are necessary to sustain the process of nutrition." "Food," says Dr. Pavy, "may be considered as comprising that which contributes to the growth and nutrition of the body, and by oxidation, to force production."—*Food and Dietetics*, p. 38.

Nutrition is the result of the perfect assimilation of all those alimentary substances which are necessary to maintain the body in its integrity in health; and "healthy life," says Dr. Chambers, "consists in a continuous and equally balanced repetition of the two necessary parts of the renewal of the body—Constructive and Destructive assimilation."

It is not with health, "the highest possible development of life in every part," radiant with joy, bursting, blooming, leaping, that we propose to deal; we leave her alone in her buoyancy. It is with "that partial cessation, or an exhibition of materials in an incomplete form," which we call disease.

The natural division of food, as we find it exhibited in its primary condition, is into organic and inorganic. The inorganic portion consists of water and salines. The organic consists of compounds of a nitrogenous and compounds of a non-nitrogenous character. Non-nitrogenized alimentary principles are composed of oxygen, hydrogen and carbon—nitrogen being absent. Nitrogenized alimentary principles are composed of nitrogen, oxygen, carbon and hydrogen. The combination of these alimentary principles make up the products of alimentary *substances*, and for general use, they are divided into animal and vegetable. Animal food comprises the *different* parts of animals, eggs, milk, and its products, and being, in its composition, identical with the tissues to be developed and kept in a state of repair, contains therefore, no elements other than those which are necessary for the growth and renovation of the body. The nitrogenous alimentary principles of the animal kingdem have been shown by Mulder and Liebig to agree in composition with those of the vegetable kingdom. Both animal and vegetable food undergo solution in the digestive fluids, and are absorbed into the blood and diffused through the system to the organs which elaborate and transform them into those nitrogenous principles which are used for the purposes of the economy. The animal nitrogenized substances seem more easily digested than vegetable, and, according to Lehmann, increase the amount of fibrine in the blood, and render it richer in red corpuscles; it also increases the amount of the phosphates and salts generally. Preponderating in nitrogenous matter, it tends

to produce firmness of muscle without the deposition of too much fat.

It has been demonstrated by Pettenkoffer and Voit that, by increasing the nitrogenous matter in foods, a corresponding increase of absorption of oxygen by the lungs takes place. *Bischoff and Voit have demonstrated that the urinary secretion is increased by a liberal supply of animal food. Lungs and kidneys are two great eliminators of effete and noxious materials from the system. Animal diet produces an acid reaction in the urine; vegetable, an alkaline. Bernard considers this fact of great importance in the employment of food in the treatment of disease. "Animal food appeases hunger more thoroughly than vegetable, and satisfies longer."† Its stimulating effect upon the system is a noteworthy fact. Dr. Dundas Thompson,‡ gives the effects of meat on some native Indians whose fare had consisted of vegetable food only. "They dined most luxuriously, stuffing themselves as if they were never to eat again. After an hour, to his great surprise and amusement, the expression of their countenances, their jabbering and gesticulations, showed clearly that the feast had produced the same effect as any intoxicating drug or spirits. The second treat was attended with the same result."

The large amount of nitrogenized matter which animal food contains, places it in the highest rank of alimentary substances. "For" says Dr. Pavy, "wherever vital operations are going on, there nitrogenous matter is forming, so to speak, the spring of vital action; it is nitrogenous matter which starts and keeps in motion the molecular changes which result in the phenomena of life Life is coincident with molecular change. In non-nitrogenous matter the elements of

*Pavy, p. 465.
†"Pavy on Food and Dietetics."
‡Experimental researches on the Food of Animals, p. 24, Lond., 1846.

the molecule are not of themselves prone to change; whereas, in the molecule of nitrogenous matter, there exists a greater complexity of grouping among elements, and these cohere so loosely, or are so feebly combined, as to have a constant tendency to alter or re-group themselves into simpler combinations. By this change in the nitrogenous, change is induced in the contiguous non-nitrogenous molecule, and occurring, as the whole does, in a definite or prescribed order, the phenomena of life are produced." Nitrogenous matter thus forming the means by which the operations of life are performed, is constantly being disintegrated. Being eliminated as effete matter, fresh supplies are needed to replace that which has performed its work and passed away. The first office then of *nitrogenous* alimentary matter is the development and renewal of the living tissues. It is in fact an inseparable ingredient of the living body. This being so, it is no less inseparable from the secretions, and in them it is eliminated from the blood by the glands, and just in proportion to the vital activity of these secreting organs, in just such proportions are new supplies of nitrogen demanded.

In the elimination of nitrogen from the system, we find now that the preconceived notions of Liebig, that urea was produced in quantities to correspond with muscular exertion and the destruction of muscular tissue, do not hold good, and that even Liebig himself has abandoned the notion. If that had been so, then nitrogenous food through the muscles would have been the only source of muscular power. Lehmann, Parkes, Frankland and Schmidt all have proven that the destruction of muscle is not the result of muscular action, and that nitrogenous matter, therefore, is not applied through muscle to the production of muscular force. It is not necessary for food to be converted into living tissue to produce force. Dr. Pavy closes this subject in this manner: "Thus much from the evidence before us may be said,

but at the same time common experience seems to show that a plentiful supply of nitrogenous matter in the food tends to increase the capacity for the performance of muscular work. If, however, it does so in any other way than by supplying materials for nutrition and the secretions, and so contributing to the production of a fully nourished and vigorous state of the system, we have no data before us to indicate how."*

Nitrogen is converted into urea, the final product of its decomposition. Lehmann has shown by experiments upon himself, and they have been further proven by Schmidt, that the amount of urea excreted is in direct ratio to the amount of nitrogenous food ingested; in fact, he asserts that as much as five-sixths of the nitrogen ingested was excreted in the form of urea. This should make an important point in the therapeutic employment of nitrogenous food in all these maladies in which there is a tendency to uræmia, its coma, and its convulsions.

The nitrogen element in nitrogenous matter is not, then, for the production of force, but is converted into urea, and passes out as such; the actual metamorphosis which takes place in respect of it in the system, more extended researches must prove. Fick, Wislicenus and Frankland have proven by experiments† that the other remaining principles of nitrogenous matter, after the nitrogen is abstracted, become oxidized, and are capable of force-production, probably through chemical action.

The production of fat by the ingestion of the *nitrogenous* alimentary principles has been proven by the experiments of Lawes and Gilbert.‡ In cases of deposition of fat, as in fatty degeneration, Virchow says, "That the fat accumulated

*Pavy on Food and Dietetics, p. 74.
†Philosophical Magazine, vol. 32, 1866.
‡On sources of Fats of the animal body, Philo. Mag., 1866.

is a product of the metamorphosis of the nitrogenous portion of the affected tissue." We see then that the nitrogenous alimentary principles fulfil three indications in the process of development and renovation of the body. 1st. The replacing of the wear and tear of nitrogenous tissue. 2d. The production partly of force. 3d. The production partly of fat. All three very important factors in the therapeutic management of diseases—the re-establisment of muscular power—the toning up of the nervous system to its normal healthy vitality—the production of heat and an elevation of temperature, approximating in a measure its normal altitude. The two last offices, the production of fat and force, is not the principal part which nitrogenous food performs in the economy; to that *chiefly* belongs the "basis of structures posessing active or living properties"—the *non*-nitrogenous elements supplying the *source of power*. We have seen that the elements of nitrogenous matter are split up into two distinct portions, and after the nitrogen is taken away from the compound, the remaining elements behave as other non-nitrogenous elements do. Still nitrogenous food in this way contributes to force production, and fat production. The non-nitrogenized substances are the fats (Hydro Carbons)—Starch and Sugars (Carbo Hydrates—and the ternary compounds including Alcohol. They contribute to the formation of adipose tissue, and have a mechanical, physical and chemicho physiological part to play in the economy. By the formation of fat the bones, arteries, muscles and other parts are protected; it lies between muscles and fills up the interstices, as of bones and other structures. It gives that rotundity and plumpness to the limbs which make up the *embonpoint* of fat and well-fed individuals; it protects the body from cold by retaining the internal heat.

By being always present it is a constant source of force production, being absorbed into the blood, whenever nature

requires it. Dr. Pavy, in his work on Food and Dietetics, says, " that there is wisdom " in the instinctive desire of the Esquimaux to consume fatty articles of food; they live largely on the blubber of the whale, fat of seals, &c. It contrasts greatly with the food of the inhabitants of the tropics, who live mostly on farinaceous compounds. The Esquimaux want fat, and nature demands it, to manufacture heat to keep them warm and protect them from the cold of the Arctic regions.

The inhabitants of the Tropics must discard it, as it would contribute to the sense of heat already present in those arid regions.

Physiologists then refer to the oxidation of the hydro-carbons as the chief source of heat-production, and to the same source now we can attribute the production of force. Those articles of food, included under the head of carbo-hydrates, are producers of fat, but play no part in force-production.*

The growth and maintenance of the body require other principles to keep the chain of nutrition unbroken, and they are supplied by water, salines and minerals. Thus, you see, we have all the alimentary substances necessary to carry on nutrition—nitrogenized, which include the protean compounds, and vitellin, globulin, syntonin, vegetable albumen, vegetable fibrine and vegetable casein; the non-nitrogenized comprise the hydro-carbons or fats, the carbo-hydrates or starch and the sugars; and now it is left for us to consider alcohol in its relations to the economy as a remedial agent, and as, is claimed for it now, a *food.*

In the relations which it bears to the treatment of disease, it has two offices to fill: 1st, that of a stimulant; 2d, that of a food. To establish its office of a food, has been the

*Pavy on Food and Dietetics, p. 134.

object of numerous experiments and much labor. It is contended on the one hand by Percy, Liebig, Baudot, Dupre, Thudicum and Anstie that alcohol taken into the system undergoes metamorphosis. It forms carbonic acid and water probably, and produces heat (Liebig); that it is used up in the system and only a small quantity passes out in the secretions. E. Smith, Lallemond, Duroy and Perrin, absolutely deny that any alcohol is taken up by the system. They assert that all passes out without any change, and except modifying digestion to a small degree, has no other alimentary property. Baudot has proven by experiments with chromic acid that the elimination of alcohol by the kidneys can be detected when the amount is almost inappreciable, and it was by these experiments that he, Dupre, Thudicum and Anstie have proven the invalidity of the views of E. Smith, Lallemond, Duroy and Perrin.

The first office of alcohol is that of stimulation, and the word stimulant, according to Anstie, must be restricted to agents, which by their direct action, "tend to rectify some deficient or too redundant natural action or tendency." Agents which produce excessive or morbid action must be refused the name of stimulants, and that "over stimulation" must be rejected as a term "unphilosophical, and a contradiction in terms."

The second office is to furnish sustenance and support to the body, especially in acute disease, when the power to take other food is partially or totally absent. The well known experiments* of William A. Hammond upon himself to determine the food value of alcohol, are very interesting and highly instructive, and I am inclined to his way of thinking in respect of its behavior in the system. He tried the influence of alcohol—

*Effects of Alcohol on the nervous system, Psychology and Med. Leg. Jour. 74.

1st. When his food was just sufficient for the wants of the system.

2d. When it was not sufficient.

3d. When it was more than sufficient.

He says: "After such results are we not justified in regarding alcohol as food? If it is not food, what is it? We have seen that it takes the place of food, and that the weight of the body increases under its use. Any substance which produces the effects which we have seen to attend on the use of alcohol is essentially food, even though it is not demonstrable at present that it undergoes conversion into tissue. Alcohol retards the destruction of the tissues. By this destruction force is generated, muscles contract, thoughts are developed, organs secrete and excrete. Food supplies the material for new tissue. Now, as alcohol stops the full tide of their decay, it is very evident that it must furnish the force, which is developed under its use. * * * It is not at all improbable that alcohol itself furnishes the force directly by entering into combination with the first products of tissue-decay, whereby they are again assimilated, without being excreted as urea, uric acid, &c. Many of these bodies are highly nitrogenous, and under certain circumstances might yield their nitrogen to the construction of new tissues. Upon this hypothesis, and upon this alone, so far as I can perceive, can be reconciled the facts that an increase of force, and a diminution of the products of the decay of tissue, attend upon the ingestion of alcohol." Dr. Francis E. Anstie, on page 392 of his Stimulants and Narcotics, says, in regard to alcohol, "this much is certain, that the so called proofs of the entire elimination of alcohol in an unchanged form, are as yet very inconclusive, while a great deal of evidence exists which renders such elimination improbable; that even if such proofs had been supplied, they would not disprove the possibility of alcohol acting as an aliment, and that, finally, the clinical fact is,

that alcohol actually does support life, in circumstances, when it must, without such aid, sink from mere inanition." To complete the list of "Food Medicines" we may add cocoa, the food of the Peruvian miner, tobacco, opium, tea and coffee; closely allied in their action to alcohol, they prevent destructive metamorphosis; small doses of strychnia, oxygen and water.

It has been the chief object of the profession from Hippocrates' time to the present, to find the means of relief from pain and suffering, thereby prolonging those vital processes which keep death in the distance, and aid nature in her work of restoration. For this purpose, tropical gardens have been planted with the rarest medicinal herbs, and the most consummate skill exercised in rearing the delicate plants. The interior of the earth has been explored, and from its bowels taken all of those medicinal substances which fill up the long list of minerals in our materia medica. The bosom of the sea contains floating upon its surface, and within its fathomless depths, inorganic substances which are essential to life and health. All nature abounds—the earth, the air and the sea—in those elementary bodies, the combination of which chemistry has set apart for her task in the great work of curing diseases and averting death. These drugs have, with careful hand, been compounded and rendered palatable by every artificial means, and the prescription balanced "to a nicety." Instruments of every conceivable shape and construction have been invented for the elucidation and treatment of disease. All these appliances of art have been studiously employed for the cure of the sick and the eradication of disease. Century after century have the followers of Æsculapius been blindly groping in the dark, inspired with the hope that, in some future day, the thick veil of mysticism would be lifted from their obstructed vision, and the naked truths of science be exposed

to view, in the light of a better mode of practice, and a more rational system of medicine.

Graves, of Dublin, after contemplating the results of his own practice, and being himself a teacher of physiology, upon which is founded the only rational system of the treatment of disease, advocated as long ago as 1833, a supporting plan of treatment in cases of fevers, which are in reality but general inflammations. The success of this plan, after careful and honest investigation, was so thoroughly fixed in the convictions of his own mind, that he is said by his co-laborer, Stokes, to have said that he wished no greater epitaph upon his tomb than "He fed fevers." What a glorious "bright particular star" was he, which, rising higher and higher in the heavens, is at last about to illumine with reflected light the whole scientific world.

Robert Bently Todd, Graves' pupil, carried this supporting plan of treatment to its fullest extent, and applied it more generally. In 1853, in a lecture to his class, Dr. Todd thus expresses himself: "From him I first imbibed a taste for physiological inquiry, and under his guidance and direction my first studies were pursued."

Dr. Todd, like a great many practitioners of that day, employed the antiphlogistic plan of treatment, and it was not until he was thoroughly convinced of the error of that plan that he began to employ the means advocated by Graves, his teacher. He was soon forced by its success to become a strenuous advocate of the restorative plan, and thus a new impetus was given by him to the researches originated by Graves.

By the restorative plan of treatment we mean that plan which, by the aid of aliment, whether that be a particular food which directly produces nutrition, or any medicinal substance which, aiding nature in the promotion of the nutritive process, contributes to the repair of the waste of the body and to its restoration to health—its highest integrity.

Dr. Todd, on this subject, thus expresses himself: "That the notion so long prevalent in the schools, that acute diseases can be prevented or cured by means which depress or reduce vital and nervous power, is altogether fallacious: that disease is cured by natural processes. Remedies, whether in the shape of drugs, which exercise a special physiological influence on the system, or in whatever form, are useful only so far as they excite, assist, or promote these natural curative processes."

Natural curative processes are performed either in one or two ways—always in one or the other, or both. By the elimination, through the emunctories, of some morbific agent which devitalizes the system and causes waste of tissue, or by directly restoring with nutritious food, loss in flesh, muscular power and nervous force—all three evident results of tissue metamorphosis. No natural process can take place without the destruction of tissue, and a renewed supply of material must be placed into the system and assimilated to repair that destruction. Therefore, the rational method of the treatment of disease is to supply the demand of nature with all the materials necessary for replacing the wasted elements of construction. Is there a drug in the Pharmacopœia that can do that alone? So frequent failures under the old system would, it seems to me, have led physicians, sooner than Graves, to the adoption of a better plan of practice. Such brilliant results, too, it seems would have induced more to follow in the footsteps of these illustrious men, to abandon old exp'oded theories, and to throw off the shackles of tradition. "Everybody," says Dr. Chambers, "acknowledges its wisdom, except a very few eccentrics."

Nature supplants waste with new material, whether wasted with disease or worn down by fatigue. She rebuilds and repairs with new timbers.

Dr. Graily Hewitt says, "That the formative power of the body is in fact its life. Creation is beyond our sphere.

But this formative power, this incessant production, gives rise to an equally incessant demand for new material. Food, in other words, is required to sustain the vital actions of the body, failing which, those vital actions must cease and life itself become extinct."*

What can all the appliances of art do without food?

Upon what does the success of the great surgeon depend after he has mutilated the body, and taken from it its useless diseased parts? What feeds the tissues while they are repairing the loss of liquid flesh, which has been poured out in the almost unavoidable hemorrhage, or in those secondary processes which give rise to profuse suppuration? What is it that restores the normal electricity of the parts, a diminution of which always takes place in surgical procedures, requiring incised wounds? Can medicaments, however nicely compounded, keep inflammation and its products in abeyance, or prevent that wasting emaciation consequent upon all grave operations? It is a fact now of almost every day occurrence to see patients who have lingered with severe continued fevers, for weeks, recover with hardly any perceptible waste; the correctness of which has been further attested, by weighing the body before and after treatment. I myself have often seen this from the restorative plan of treatment.

Restoration, then, means the bringing up of diseased bodies to a healthy standard, an exact counterbalancing with food and other constructive agents, the waste caused by destruction of tissue.

The harmony of the organic functions of the human body depends not upon the quantity of any *one* alimentary element, but upon a complete combination of every necessary ingredient, which is capable and indispensable for the

*Lecture to his Class, 1867.

evolution of the phenomena of life. The digestion of, and absorption into the blood of these alimentary substances must take place before the necessary repairs upon diseased systems can be made.

Absolute deprivation of food, and deficiency in quality, are identically the same in results; they are only different in duration and degree. The body reaches death when six-tenths of its weight is gone. In inanition, Chossat has proven that when the temperature falls to 70° fah. death ensues.

In the treatment of disease by alimentation one part of the body may suffer for the want of *its* proper food, while other parts may be fully nourished. "Starvation," says Dr. Hunt,* "is a comparative phrase; we can starve muscle by withholding nitrogen; we can starve the fats of the body and destroy animal heat by with holding carbon; so, too, we can strave the brain by witholding phosphorus, and starve the blood by failing to supply it with those salts of lime, potash, soda, iron and magnesia, which are essential to its healthy condition."

Dr. Austin Flint, in his medical essays, p. 144, says that "Starvation is sure to occur in cases of disease in a degree proportionate to the lack of material for nutrition in the blood. * * * Impoverishment of the blood, emaciation, febrile movement, followed by reduction of animal temperature, feebleness of the circulation, vigilance, perversion of the moral sentiments, delirium, diarrhœa and fetor of the breath, may be attributed, in cases of disease, to starvation." Starvation may not be a necessary effect of the existing disease, but may be due to insufficient alimentation, (Flint's Essays). In such cases inanition may prove a cause of death, when the disease need not have destroyed

*Sanitary Memoirs of the War of Rebellion, vol. 1.

life; the patient indeed may die of starvation, notwithstanding the progress of the disease, *per se*, be favorable, p. 145.

Of all supporting measures alimentation is of the first importance. Alcoholic stimulants deserve the next rank, and all medicinal substances which aid or promote the absorption into the blood, and assimilation of nutritive elements, deserve the third and last place in the list of restoratives.

It is mostly with acute disease we have to deal, and hence it is of the greatest importance to know how to treat it. In acute disease the powers of life are rapidly wasted away—the progress of which is retarded or checked, in proportion to the assimilation of nutritive material. In acute fevers our remedies are not directed to the arrest of the disease, but we can only keep the ship in order, and be the judicious pilot who shall direct and steer her in the smooth and even channel, away from breakers and quicksands.

Hippocrates recommended in "acute febrile diseases," wine and a ptisan of barley. Graves, of Dublin, added stronger and more concentrated substances to the list.

It was left for Robert Bentley Todd to develop more thoroughly, and carry out to its fullest extent, the practice advocated by Graves. Dr. Todd, (says Lionel S. Beale,)* "was by many very unjustly accused of indiscriminate stimulation, and many hard and unjust things were said of him, but these are, or will be forgotten." Alas! the lamented Anstie, and it is "with chastened accents that I breathe the name of the illustrious dead," speaks of Dr. Todd, his teacher, in these terms: "To my certain knowledge there are medical men in extensive practice, who, from a mere metaphysical belief that stimulants must increase fever, shrink from giving alcohol to a man with a red face and bounding

"*On medical progress." In memoriam R. B. Todd, p. 23.

pulse, (both of them signs by the way of lowered arterial tension,) who do not hesitate to give the most random and inexact recommendations of plenty of port wine to hysterical women, with results which are disastrous to the last degree. It is against *such men* that the charge of *indiscriminate* alcoholic stimulation may be justly brought, and we of the school of Todd, who have borne for years past the unmerited obloquy of a supposed reckless stimulation in disease, which was no real part of our teacher's doctrine, or of our own practice, have a right to insist that justice shall be done, and a mischievous popular belief corrected." In acute disease the frequency of the heartbeats is increased, and its contractions lessened in power.

"In very low states of the system," says Lionel S. Beale,* "the albuminous matters are fast escaping from the blood, the blood corpuscles are undergoing rapid disintegration, and the lining matter or bioplasm of the vessels of the neighboring tissues and of the blood, is growing very quickly. Now alcohol tends to modify all these phenomena. It reduces the permeating tendency of the semen; it checks the disintegration of blood corpuscles; it prevents the rapid growth of living matter; it interferes with or modifies chemical changes taking place in organic fluids. When these changes are proceeding very rapidly, the capillary circulation beginning to fail, the heart's action becoming very weak and fluttering and the strength ebbing fast, alcohol may save life." After carefully watching more than one hundred serious cases of acute disease, treated with large quantities of stimulants, Dr. Beale's conclusions are, "That intoxication is not produced; that delirium, if it has occurred, ceases, or is prevented from occurring at all in the course of the case; that headache is not occasioned; that

*In mem. R. B. Todd, p. 23.

the action of the skin, kidneys and bowels goes on freely; that the tongue remains moist, or if dry and brown, often becomes moist; that the pulse *falls in frequency and increases in power;* that respiration is not impeded, but that, where even one entire lung is hepatized, the distress of breathing is not increased; and it appears that the respiratory changes go on under the disadvantageous circumstances present, as well as if no alcohol were given."* Anstie and Beale were Todd's pupils. The *genuine* effects of stimulation, then, are: 1st. Relief of pain. 2d. Removal of muscular spasm, tremor or convulsion. 3d. Reduction of undue frequency of the circulation. 4th. Removal of general debility, or of special fatigue of muscles, brain or digestive organs. 5th. Reduction of excessive secretion. 6th. Removal of delirium or maniacal excitement and production of healthy sleep. 7th. Support of the organism in the absence of ordinary food. 8th. Local increase of nutrition where this is deficient.† The mode of treatment which ninety-nine times out of a hundred proves successful in removing pain in medical practice, is pure stimulation, (Anstie,) and at the very head of the list, is food; for says he, "there is nothing which in so many cases relieves pain with satisfactory celerity, except kept up by mechanical causes." Dr. Anstie cites cases of relief of pain with food, in different affections. 1st. Of a neuralgic kind. 2d. That of intense cellular inflammation of the finger and hand from a dissecting wound. The agony of severe peritonitis, (case cited by Anstie, Stims. and Narcts., p. 114,) derived rapid and almost instant relief from enemas of rich warm soup.

Next to food, opium in small doses relieves pain more than any other remedy, in a manner similar to the action

*British Med. Jour., 1863.
†Anstie's "Stimulants and Narcotics."

of food. Alcohol is very powerful, in full stimulant doses, in the relief of pain, especially of a neuralgic kind.

"Quinine," says Anstie, "seems to have a double influence, at once improving the quality of the blood, and strengthening the systemic circulation." Iodine and iodide of potassium act by directly improving the nutrition of the blood. Cod liver oil in the relief of persistent neuralgic pains, is very closely allied in its *action* to alcohol.

Food, then, has the double action of nourishing the body while it is relieving pain, and I think that the time is not far distant, when modern rational medicine shall have asserted its rights, and that Chomel's golden rule, that it is only the second law of therapeutics to do good, the first being, not to do harm, "will become a governing rule of action."

In fifty-three cases of pneumonia treated in the Liverpool Northern Hospital by Dr. Waters—in thirty, alcoholic stimulants formed the main therapeutic agent. In cases marked by rapid pulse and great dyspnœa, brandy was given every hour or every hour and a half, with food, beef tea and milk. In *every case* nutriments were freely allowed, beef tea and milk from the commencement, and solid food as soon as they could take it. Of the fifty-three cases one died with rapid effusion into the pleura; the average duration was eight and one-sixth days. No mercury, no antimony, no opium, no blisters given in the great majority of the cases, and in thirty out of fifty-three, nothing but food and stimulants, (alcoholic,) and yet only one out of that number died. Dr. Waters concludes that the treatment adopted is not characterized by the exhibition of large doses of any of the so called antiphlogistics. *Nourishment* is *never* withheld if the patients can take it, and powerful purgatives are not resorted to. The ingestion of nutriment

in this as in other acute diseases, forms an *important* element in the therapeutics of Dr. Waters.*

Dr. Jacobi, of New York, thinks highly of digitaline and veratrium viride in the treatment of pneumonia. In comparing the literature of action of digitalis and veratrium for the last twenty years, Dr. Jacobi† thinks with Traube, that they act upon the pneumogastric nerve; that they increase the force and diminish the frequency of the heart's action: thus augmenting the power of the circulation, they tend to prevent congestion or stasis, of which there is much danger in inflammatory diseases.

This stasis or congestion is favored by the lessened tension of the aortic system, and has a serious effect on nutrition. Ludwig first drew attention to the fact that a continuous filtration of the nutritive materials takes place from lessened tension, and Milne Edwards has called it "irrigation;" the tissues suffer from the diminished supply of nutritive material, and the functions of different organs are impaired. There are certain secretions, as that of the kidneys, which are dependent upon the pressure of the column of blood upon the walls of their bloodvessels for the proper performance of their functions. Louis Traube thinks, since this is so, the stomach would secrete less pepsin, and in consequence, the system would suffer all the ills of impaired digestion.

Weber has proven that rapidity of circulation depends on the difference in arterial and venous tension. Less blood will pass into the veins in diminished pressure in the arteries, and less oxygen therfore will be carried to the tissues; "two sources of life are thereby impaired;" digitalis and veratrium restore the balance, and are constructive agents, in so far as they remove the causes of any impairment to the

*Medical Times and Gazette, Nov., 1869.
†The Medical Record, Sept., 1870.

nutritive process, or to the proper oxygenation of the blood, or to the sufficient functional performance of the secreting organs.

In conclusion, I must say a few words in regard to nutrition in chronic diseases, and I can do no better than to quote, in substance, a few lines from Dr. Flint's Medical Essays: "No matter what may be the seat or nature of the chronic affection, a diet fully up to the capacity of the organism for nutrition, promotes recovery, if recovery be possible; and if recovery be not possible, by increasing the ability of the system to endure the affection, contributes to prolong life." What Dr. Anstie says in respect of acute diseases, is no less true of chronic, that "Nature will put up with a good deal, but the combination of acute disease and starvation is really rather too much, even for her patience."*

Lastly, in the language of Prof. William T. Howard,† deprecating the results of the antiphlogistic practice: "Can it be wondered at that the aged, the young, the fragile, the tender and the delicate, often succumbed to such treatment? This mode of practice, though less dangerous in the strong and robust, was never, in fact, based on true scientific principles even for them; for where it is necessary to deplete, whether upon the so called antiphlogistic, or upon mechanical principles, there is nothing incompatible with either view, in sustaining the vital forces by suitable food." When nature falters, art can do but little.

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*Stimulants and Narcotics, p. 384.
†Valedictory address in the School of Med., Uni. Maryland, Mach 5. '68.

BELLEVUE HOSPITAL MEDICAL COLLEGE,

CITY OF NEW YORK.

Sessions of 1876-'77.

The Collegiate Year in this Institution embraces a preliminary Autumnal Term, the regular Winter Session and a Spring Session

The Preliminary Autumnal Term for 1876-'77 will open on Wednesday, September 13th, 1876, and continue until the opening of the Regular Session. During this term, instruction, consisting of didactic lectures on special subjects and daily clinical lectures, will be given, as heretofore, by the entire Faculty. Students expecting to attend the Regular Session are strongly recommended to attend the Preliminary Term, but attendance during the latter is not required. *During the Preliminary Term, Clinical and Didactic Lectures will be given in precisely the same number and order as in the Regular Session.*

The Regular Session will commence on Wednesday, September 27th, 1876, and end about the 1st of March, 1877

Faculty:

ISAAC E. TAYLOR, M.D.,
Emeritus Professor of Obstetrics and Diseases of Women, and President of the Faculty.

JAMES R. WOOD, M.D., LL.D., Emeritus Professor of Surgery.

AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine.

W. H. VAN BUREN, M.D., Professor of Principles and Practice of Surgery, Diseases of Genito-Urinary System, and Clinical Surgery.

LEWIS A. SAYRE, M.D., Professor of Orthopædic Surgery, Fractures and Dislocations and Clinical Surgery.

ALEXANDER B. MOTT, M.D., Professor of Clinical and Operative Surgery.

WILLIAM T. LUSK, M.D., Professor of Obstetrics and Diseases of Women and Children, and Clinical Midwifery.

EDMUND R. PEASLEE, M.D., LL.D., Professor of Gynæcology.

FORDYCE BARKER, M.D., Professor of Clinical Midwifery and Diseases of Women.

WILLIAM M. POLK, M.D., Professor of Materia Medica and Therapeutics and Clinical Medicine.

AUSTIN FLINT, Jr., M.D., Professor of Physiology and Physiological Anatomy and Secretary of the Faculty.

ALPHEUS B. CROSBY, M.D., Professor of General, Descriptive and Surgical Anatomy.

R. OGDEN DOREMUS, M.D., LL.D., Professor of Chemistry and Toxicology.

EDWARD G. JANEWAY, M.D., Professor of Pathological Anatomy and Histology, Diseases of the Nervous System, and Clinical Medicine.

Professors of Special Departments, Etc.

HENRY D. NOYES, M.D., Professor of Opthalmology and Otology.

JOHN P. GRAY, M.D., LL.D., Professor of Psychological Medicine and Medical Jurisprudence.

EDWARD L. KEYES, M.D., Professor of Dermatology, and Adjunct to the Chair of Principles of Surgery.

EDWARD G. JANEWAY, M.D., Professor of Practical Anatomy. (Demonstrator of Anatomy.)

LEROY MILTON YALE, M.D., Lecturer Adjunct upon Orthopædic Surgery.

A. A. SMITH, M.D., Lecturer Adjunct upon Clinical Medicine.

A distinctive feature of the method of instruction in this College is the union of clinical and didactic teaching. All the lectures are given within the Hospital grounds. During the regular Winter Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction.

The Spring Session consists chiefly of Recitations from Text-books. This term continues from the first of March to the first of June. During this Session, daily recitations in all the departments are held by a corps of examiners appointed by the regular Faculty. Regular clinics are also given in the Hospital and College building.

Fees for the Regular Session.

Fees for Tickets to all the Lectures during the Preliminary and Regular Term, including Clinical Lectures	$ 140 00
Matriculation Fee	5 00
Demonstrator's Ticket, (including material for dissection,)	10 00
Graduation Fee	30 00

Fees for the Spring Session.

Matriculation (Tickets good for the following Winter.)	$ 5 00
Recitations, Clinics, and Lectures	35 00
Dissection, (Ticket good for the following Winter.)	10 00

Students who have attended two full Winter Courses of Lectures may be examined at the end of their second course upon Materia Medica, Physiology, Anatomy, and Chemistry, and, if successful, they will be examined at the end of their third course upon Practice of medicine, Surgery, and Obstetrics only.

For the Annual Circular and Catalogue, giving regulations for graduation and other information, address Prof. AUSTIN FLINT, Jr., Secretary, Bellevue Hospital Medical College.

UNIVERSITY OF PENNSYLVANIA,

MEDICAL DEPARTMENT.

Thirty-Sixth and Locust Streets, Philadelphia.

111th ANNUAL SESSION, 1876-'77.

Professors:

GEORGE B. WOOD, M.D., LL.D., Emeritus Professor of Theory and Practice of Medicine.
HENRY H. SMITH, M.D., Emeritus Professor of Medicine.
JOSEPH CARSON, M.D., Emeritus Professor of Materia Medica and Pharmacy.
ROBERT E. ROGERS, M.D., Professor of Chemistry.
JOSEPH LEIDY, M.D., LL D., Professor of Anatomy.
FRANCIS G. SMITH, M.D., Professor of the Institutes of Medicine.
RICHARD A. F. PENROSE, M.D. Professor of Obstetrics and Diseases of Women and Children.
ALFRED STILLE, M.D., Professor of Theory and Practice of Medicine.
D. HAYES AGNEW, M.D., LL.D., Professor of Surgery and Clinical Surgery.
HORATIO C. WOOD, M.D., Professor of Materia Medica and Pharmacy.
WILLIAM PEPPER, M.D., Professor of Clinical Medicine.
JOHN NEILL, M.D., Professor of Clinical Surgery.
WILLIAM GOODELL, M.D., Clinical Professor of Diseases of Women and Children.
JAMES TYSON, M.D., Professor of General Pathology and Morbid Anatomy.
WILLIAM F NORRIS, M.D., Clinical Professor of Diseases of the Eye
GEORGE STRAWBRIDGE, M.D., Clinical Professor of Diseases of the Ear.
HORATIO C. WOOD, JR., M.D., Clinical Professor of Nervous Diseases.
LOUIS A. DUHRING, M.D., Clinical Professor of Diseases of the Skin.

H. LENOX HODGE, M D., Demonstrator of Anatomy.
CHARLES T. HUNTER, M.D., Demonstrator of Surgery.
GEORGE M. WARD, M.D., Demonstrator of Practical Chemistry.
ISAAC OTT, M.D., Demonstrator of Experimental Physiology.

The Medical Faculty occupy an elegant and commodious building which affords ample space for Dissecting and Operating Rooms, and for their valuable Museum, Apparatus, and Library, and secures superior advantages to the student in health and facility of study. Didactic Lectures and Laboratory Instruction are given in this building, and Daily Clinics in the University Hospital and in the Philadelphia Hospital, which are adjacent. Clinical instruction continues during the whole year, except July and August.

Besides the obligatory study of Practical Anatomy, practical courses are accessible, during the winter and spring, to students in Operative Surgery, Chemistry, Physiology, Comparative Anatomy, Clinical Medicine, Surgery, and Obstetrics.

Students who have attended two full courses of lectures on Anatomy, Chemistry, Materia Medica, and the Institutes of Medicine, may be examined on those subjects at the end of the Second Course, and, if approved, will, at the end of their Third Course, be examined only on Theory and Practice of Medicine, Surgery and Obstetrics.

The recent edition by the Board of Trustees of several new Professors to the Faculty, will impose on the student no increase of expense or duration of study, or other examinations for the degree than have hitherto been required.

Matriculates in the Medical Department are entitled to attend, during the Spring and Summer, the lectures of the Auxiliary Faculty on Zoology and Comparative Anatomy, by H. Allen, M D.; on Botany, by H. C. Wood, Jr., M D.; on Hygiene, by H. Hartshorne, M.D.; on Medical Jurisprudence and Toxicology, by J. J. Reese, M.D.; and on Mineralogy and Geology, by S. B. Howell, M.D.

The Lectures of the Session of 1876-'77 will commence on the first Monday (2d) of October, and terminate on the last day of February.

FEES.—For one full course of Lectures, $140. For each professor's ticket for one course, $20. Matriculation fee (paid once only), $5. These fees are payable in advance. Graduation fee, $30.

Letters of inquiry should be addressed to

ROBERT E. ROGERS, M.D., Dean,
P. O. Box 2838, Philadelphia.